

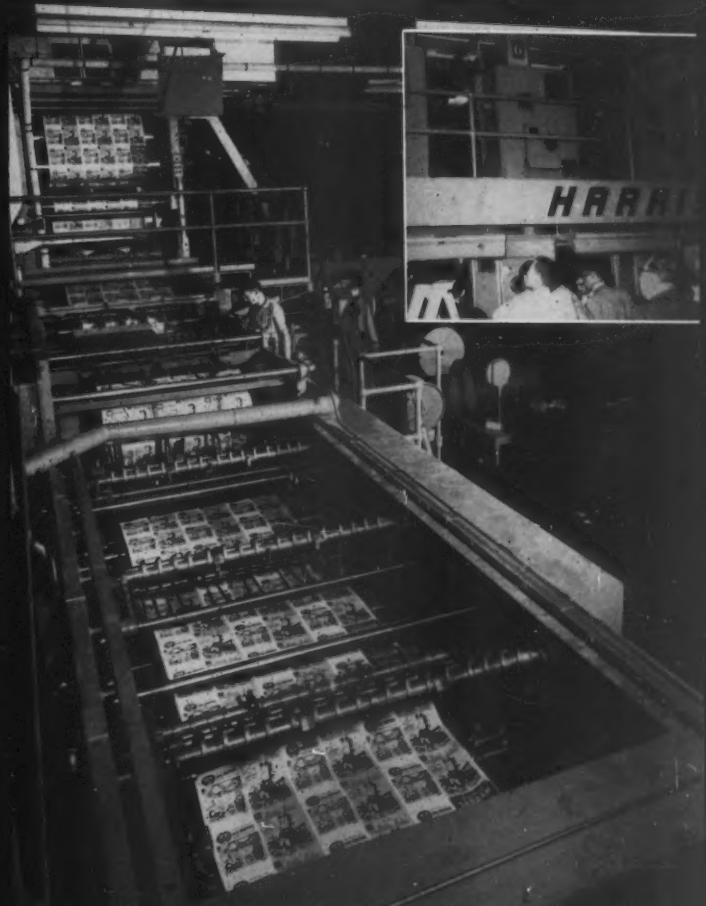
Modern

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LITHOGRAPHY

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JULY 6 1957
DETROIT *msk*





Hermann Zapf
gehört zur Spitzengruppe
der Schriftkünstler*

* "Hermann Zapf is 'going places' in type design!" That's the word in Europe wherever men talk type. And designers, typographers and printers everywhere are interested in his new association with Linotype.

This young leader of the type renaissance in post-war Germany has brought a refreshing airiness to layouts, with his *Palatino* and other faces. A born calligrapher, he has that rarity, a perfect "fist." *Pen and Graver*, one of his books of alphabets, has been termed "the most beautiful book in a hundred years."

Even bigger things are expected of Hermann Zapf. He represents an important addition to the great designing talents and unmatched typographic resources available exclusively through Linotype.

"The contribution of the contemporary designer to modern type design is to adapt established forms to meet the requirements of modern materials and production methods, and the development of the letter form to its ultimate refinement ornamentally and texturally.

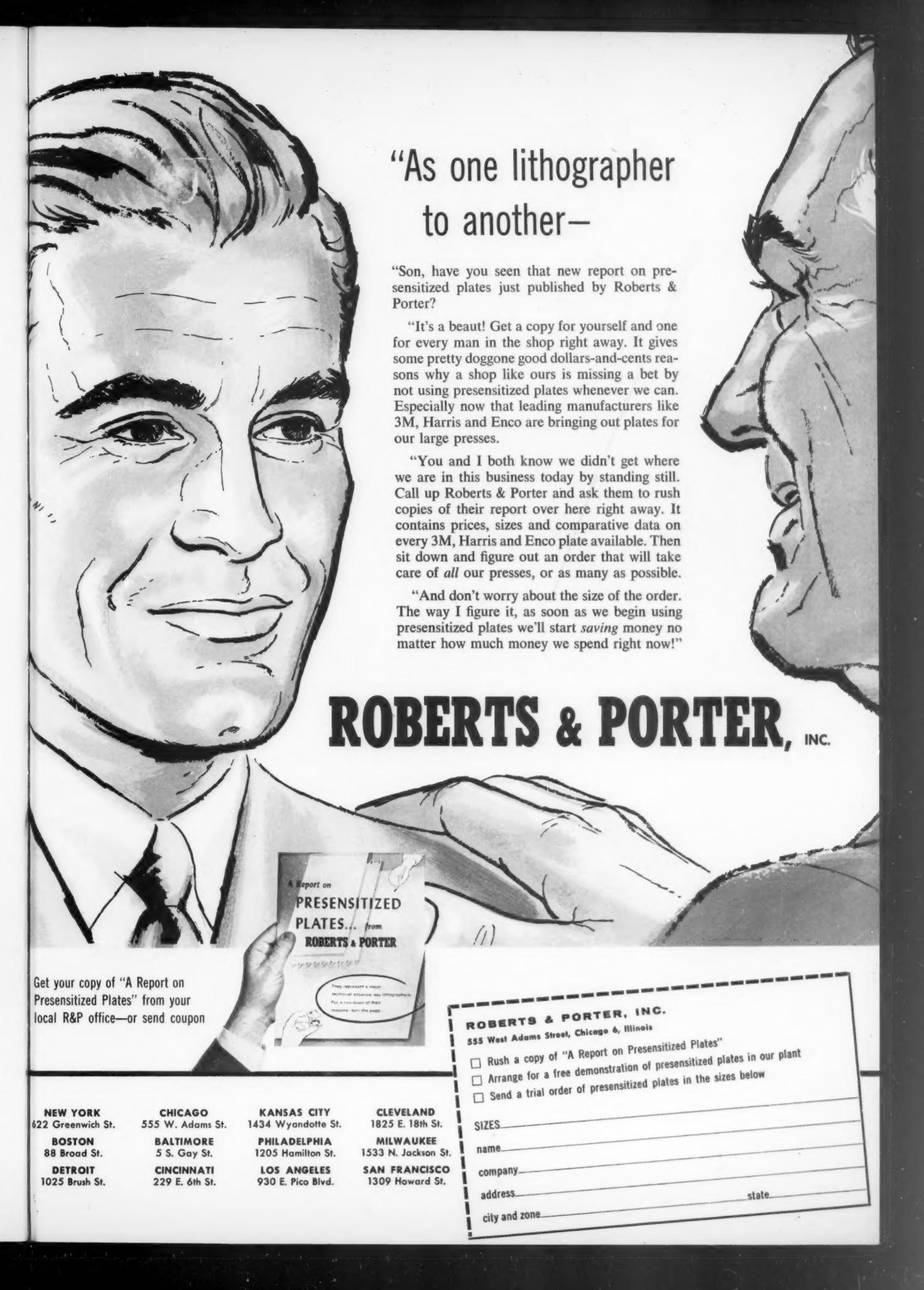
"These requirements Hermann Zapf, in his almost fifty type and typographic designs, has met admirably. This is especially true in his *chef d'œuvre*, *Palatino*, and its companion letters, *Michelangelo* and *Sistina*. There is no doubt that today he is one of the world's foremost type designers. His *Pen and Graver* and *Manuale Typographicum* alone are enough to establish his name for posterity. The Mergenthaler Linotype Company is to be commended for having the foresight to enlist Hermann Zapf, with his skill, scholarship and taste, as a consultant designer." Franz C. Hess, of Huxley House, New York



• LINOTYPE •

Mergenthaler Linotype Company, 29 Ryerson Street, Brooklyn 5, N. Y.
Set in *Palatino*, available on German Linotype matrices.

NEW
622 Gr
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88 B
DE
1025



"As one lithographer to another—

"Son, have you seen that new report on presensitized plates just published by Roberts & Porter?

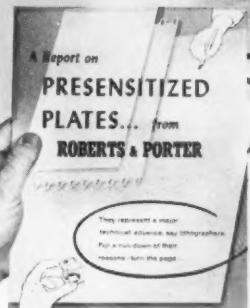
"It's a beaut! Get a copy for yourself and one for every man in the shop right away. It gives some pretty doggone good dollars-and-cents reasons why a shop like ours is missing a bet by not using presensitized plates whenever we can. Especially now that leading manufacturers like 3M, Harris and Enco are bringing out plates for our large presses.

"You and I both know we didn't get where we are in this business today by standing still. Call up Roberts & Porter and ask them to rush copies of their report over here right away. It contains prices, sizes and comparative data on every 3M, Harris and Enco plate available. Then sit down and figure out an order that will take care of *all* our presses, or as many as possible.

"And don't worry about the size of the order. The way I figure it, as soon as we begin using presensitized plates we'll start *saving* money no matter how much money we spend right now!"

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It's one thing to put moisture into an offset paper as it's made, but quite another to *keep* the moisture content exactly right during sheeting, trimming, and packing. That's why, as the weather changes, New York and Penn adjusts the humidity in its offset finishing room at its Lock Haven, Pa., mill.

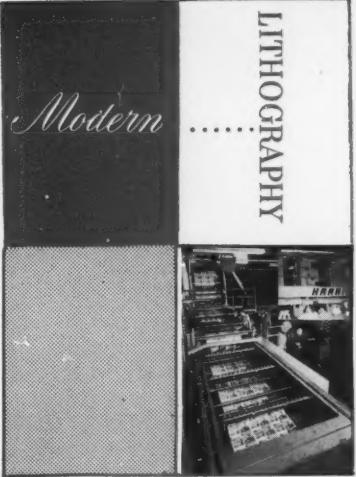
Keeping our new Penn/Brite Offset under carefully controlled conditions from the time it leaves the machine until it is "finished" provides an *extra* plus for this fine paper. Because these precautions are taken at our

mill, a printer knows that Penn/Brite, with the proper care, can be run with a minimum of trouble, even if his plant is not humidified.

Penn/Brite has the brightness that gives sparkling reproduction, the smoothness that means outstanding printability. Penn/Brite Offset is now available in key eastern markets. We'll be glad to send you the names of the distributors who stock this grade. New York & Pennsylvania Co., 425 Park Avenue, New York 22, N. Y.

New York and Penn *Pulp and Paper Manufacturers*

Makers of Penn/Brite Offset • Penn/Gloss Plate • Penn/Print Eggshell • English Finish • English Finish Litho • Super • Clarion Papers • Duplicator • Mimeograph • Bond • Tablet



COVER

Giant eight-color web offset press turns out comic book covers in four-color process as trade magazine editors and PIA Web Offset Section members watch (inset) at Western Printing & Lithographing Co., Poughkeepsie, N.Y. Details on page 24.

WAYNE E. DORLAND
Publisher

HAMILTON C. CARSON
Editor

FRANK T. HUMMLER
Associate Editor

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MODERN LITHOGRAPHY

VOLUME 25, NUMBER 7

JULY, 1957

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Books on Estimating

Dear Sir:

Could you please send me any literature you have available on the subject of estimating for offset lithography?

William McLaughlin
Brooklyn

We suggest you contact the Lithographic Technical Foundation, 131 East 39th St., New York 16, for books on estimating. LTF has Special Subject Text No. 410: *Estimating* (black and white) and No. 411: *Estimating* (color)—Editor

School Listing

Dear Sir:

I want to take this opportunity to thank you for listing our school under your heading "Litho Schools." I'm sure we have had many inquiries as a result of your giving us the space in your column.

I can say we enjoy your magazine very much and by the time about 35 students and instructors get through with it, it is what you might say "dog-eared." After the first reading it is placed in our library and used as reference material.

Thanks again for your generous attitude toward our litho school.

E. W. Eaton, Head
Graphic Arts Dept.,
Oklahoma A. & M.,
Oklmulgee, Okla.

We are quite happy that our listing of litho schools has stirred up some inquiries for Oklahoma A & M. Reader Eaton and others may avail themselves of ML's group subscription plan to prevent their copies from becoming dog-eared. Price is \$2 per year for each subscription in groups of four or more.—Editor

Newspapers by Offset

Dear Sir:

In reading the April issue of *Modern Lithography*, I note a reference to newspapers by offset on page 93. I take it a list of weekly newspapers printed by offset is available.

If it is not too much trouble I would appreciate receiving this list in order that I may correspond with four or five of them, in order to gather knowledge for the possibility of producing a weekly newspaper in

(Continued on Page 18)



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magazine in the field of
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**MODERN
LITHOGRAPHY**

P. O. Box 31 Caldwell, N. J.

MODERN LITHOGRAPHY, July, 1957



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of how best to serve**

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**SWAB-EZE ARE NOW BEING PRODUCED
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Our newest by-product, SWAB-EZE, has these very distinct advantages over the obsolete swabs and wipes now in use: it is a sturdy item, designed for tough handling yet made of lightweight plastic; it is *colorful*, always easily visible; it is *economical*, not only because it outlasts other swabs, but because the thick mohair pile backing does not soak up and waste chemicals — plus: it can be cleaned and reused time and again; it has an *easy-grip handle* which means hands are never soiled in the swabbing processes — For long-run economy, for all plate-swabbing needs; SWAB-EZE! A by-product of our continuing research for YOU and LITHOGRAPHY.

USE THIS HANDY ORDER BLANK

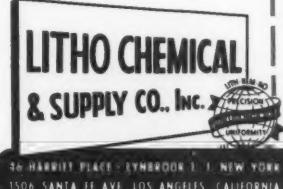
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NAME _____

COMPANY _____

ADDRESS _____





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Trade Events

International Association of Printing House Craftsmen, Inc., 38th annual convention, Hotel Statler, Buffalo, N.Y., Aug. 4-7.

National Association of Photo-Lithographers, 25th annual convention, Sept. 11-14, Chase Park-Plaza Hotel, St. Louis.

Canadian Lithographers' Association, 15th annual convention, Mont Tremblant Lodge, Mont Tremblant, Quebec, Sept. 22-26.

Printing Industry of America, annual convention, Morrison Hotel, Chicago, Oct. 14-18.

National Metal Decorators Association, 23rd annual convention, Oct. 21-23, Chicago.

Litho Schools

Canada—Ryerson Institute of Technology, School of Graphic Arts, 50 Gould St., Toronto, Ont., Canada.

Chicago—Chicago Lithographic Institute, 1611 W. Adams St., Chicago 12, Ill.

Cincinnati—Ohio Mechanics Institute, Cincinnati, Ohio.

Los Angeles—Los Angeles Trade Technical Junior College, 1646 S. Olive St., Los Angeles 15, Calif.

Minneapolis—Dunwoody Industrial Institute, 818 Wayzata Blvd., Minneapolis 3, Minn.

Nashville—Southern School of Printing, 1514 South St., Nashville, Tenn.

New York—New York Trade School, Lithographic Department, 312 East 67 St., New York, N.Y.

Manhattan School of Printing, 72 Warren St., New York, N.Y.

Oklahoma—Oklahoma A & M Technical School, Graphic Arts Dept., Okmulgee, Okla.

Rochester—Rochester Institute of Technology Dept. of Publishing & Printing, 65 Plymouth Ave., South Rochester 8, N.Y.

Philadelphia—Murrell Dobbins Vocational School, 22nd and Lehigh, Philadelphia, Pa.

Pittsburgh—Carnegie Institute of Technology, School of Printing Management, Pittsburgh.

San Francisco—City College of San Francisco, Ocean and Phelan Aves., Graphic Arts Department.

St. Louis—David Ranken, Jr., School of Mechanical Trades, 4431 Finney St., St. Louis 8, Mo.

Vancouver—Clark College.

West Virginia—W. Va. Institute of Technology, Montgomery, W. Va.

Trade Directory

Lithographic Tech. Foundation

Wade E. Griswold, Exec. Dir.
131 East 39th St., New York 16, N.Y.

National Assn. of Photo-Lithographers

Walter E. Soderstrom, Exec. V.P.
317 West 45th St., New York 36, N.Y.

Lithographers National Association

W. Floyd Maxwell Exec. Dir.
381 Fourth Ave., New York 16, N.Y.

National Assn. of Litho Clubs

Edward L. Bode, secretary
504 Marjorie Ave.
Dayton 4, Ohio.

Printing Industry of America

Bernard J. Taymans, Mgr.
5728 Connecticut Ave., N.W., Washington, D.C.
International Assn. Ptg. House Craftsmen
P. E. Oldt, Exec. Sec'y.
307 E. Fourth St., Cincinnati 2.

which offset plate for you?

SMOOTH SURFACE PLATE?

If you use smooth plates you know there are certain advantages: sharp tones, clean lines, good fidelity, no background scumming. BUT . . . by the very nature of a perfectly smooth surface there are inherent limitations not found in a grained plate.

GRAINED SURFACE PLATE?

A grained surface, too, has certain advantages: wide latitude in ink and water control, no roller skid, clean tones and reverses, long plate life. BUT . . . even a grained texture has limitations. (In various features a *grained plate* is superior to a smooth plate, and vice versa.)

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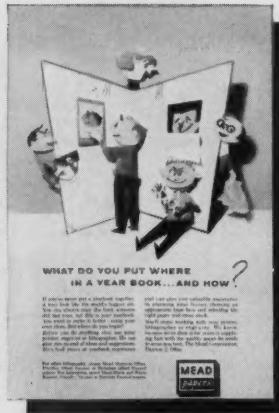
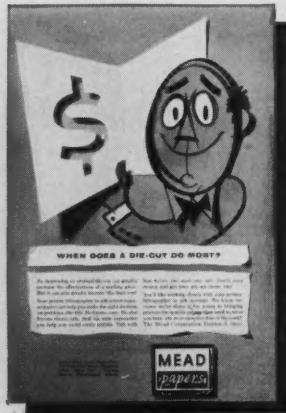
These plates are neither *smooth* nor *grained* but actually micro-etched . . . combining the advantages inherent in *both* surfaces. This exclusive Harris Alum-O-Lith feature offers the easiest-to-process, cleanest all-around running surface of any plate on the market.

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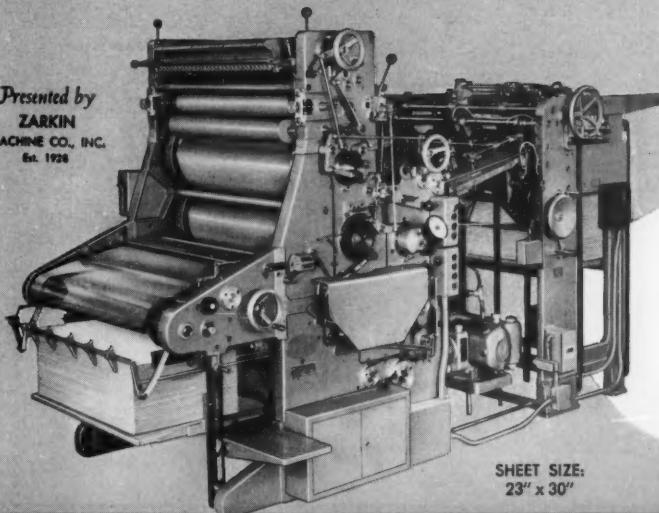
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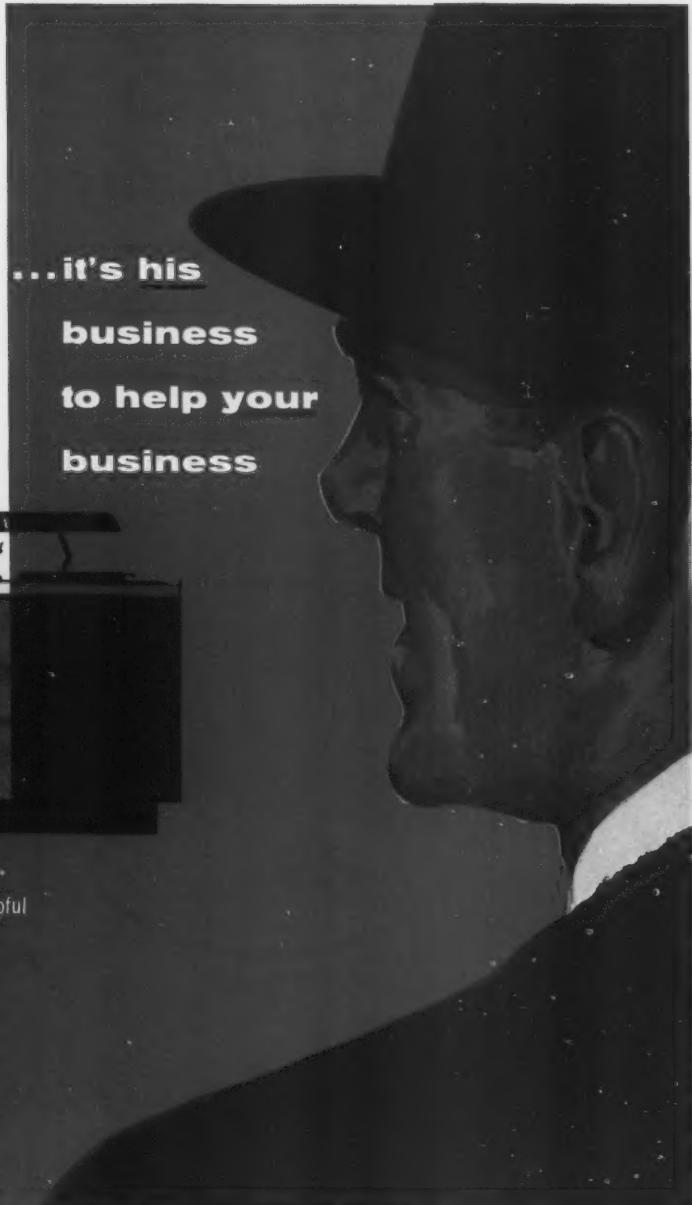
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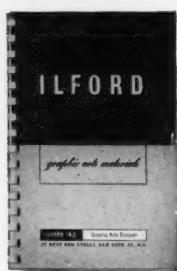
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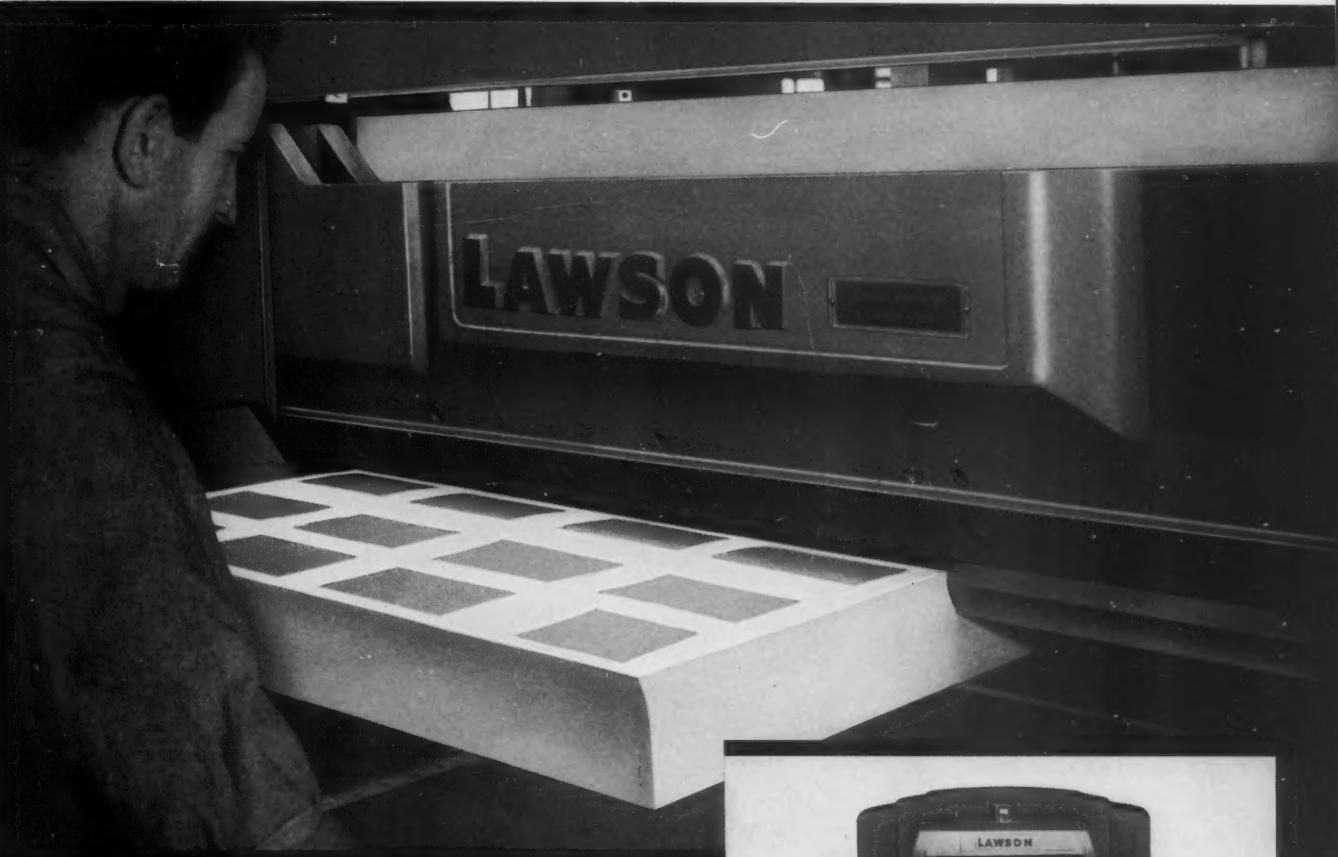
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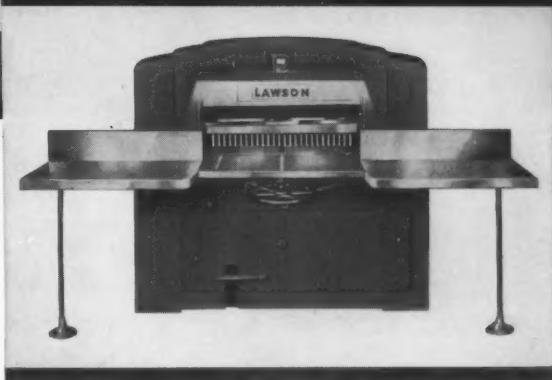
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LETTERS

(Continued from Page 6)

Canada by the offset method.

I also note reference is made to an article in the February issue concerning an offset daily, and if this article is available I would greatly appreciate it also.

K. G. Griffiths
Sears Limited
Montreal

Copy of the list, which is now a few years out of date, has been sent, along with tear sheets of the article on the Middletown (N. Y.) Daily Record, daily newspaper produced by offset.—Editor

Murder in the Gutter

Dear Sir:

. . . the men in our barracks have asked me to get information on a small article in the April issue of ML (page 113) entitled "Murder in the Gutter." How can we get "The Printer's Home Companion," from which this piece was taken? . . . We find ML a very interesting and technical book in our field of lithography. . . .

Pfc Joel C. Hairston
95th Engr Co.
29th Engr Bn APO 500
San Francisco

We have asked Case Paper Co., 140 Perry St., New York, to put you on the mailing list for their publication "The Printer's Home Companion."—Editor

Seeks Schooling

Dear Sir:

I have just been discharged from the Navy and am interested in lithography. Would you please send me information on lithographic schools with two or three year courses. I am particularly interested in the photographic, stripping and platemaking phase of the litho business.

Knowlton J. McIntyre
Springfield, Mass.

A list of litho schools in all parts of the United States has been sent. It appears each month in ML.—Editor

Paper Dampeners

Dear Sir:

As a recent addition to your mailing list, may I say how much I am enjoying your very excellent journal. I find the articles of a technical nature of consummate interest and a great help in furthering my knowledge in the ever-broadening field of lithography.

If I may pose you a question, in reference to the November issue. In the NAPL questions and answers session, Mr. Bruno spoke at some length on paper dampening covers.

This system appeals to me and I would like to put it into practice, but I am somewhat stumped as to the fixing of the paper to the roller stock. Please could you further advise me on this matter.

P. H. Armitage
570 Map Reproduction Troop
Royal Engineers
Singapore

Lithographers we have talked with seem to prefer tape for fastening the paper dampeners, after they have been spiral wound on the roller with about $\frac{1}{4}$ " overlap. Others find that rubber bands work quite well. Ideal Roller and Man-

ufacturing Co., 2512 W. 24th St., Chicago 8, Ill., has done much of the pioneering work in this field, and very likely could supply you with complete information.—Editor.

Offset Work Grows

Dear Sir:

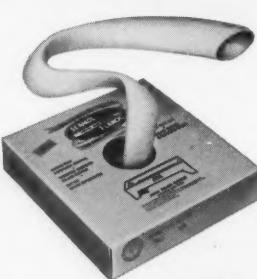
I thought you might be interested to know that we have the only offset (small) plant in the Maritime Provinces of Canada.

We have a new A.T.F. camera and developing department, plate burning equipment, a Chief "24," and a Davidson. We have found since we started this small

(Continued on Page 113)



Seamol® and Flanol® dampener covers



Slip tough, all-wool Flanol (undercovering) on your dampener rollers for premium resilience and water retention. Cover it with sturdy, white Seamol* to insure constant, even distribution of fountain solution. Both are *seamless*, and *stretch-tested* to fit rollers snugly. Write for details and prices to Jomac Inc., Dept. L-1, Philadelphia 38, Pa.

*U.S. Patent

Break dampeners in and keep them clean with a Jomac Roller Cleaner

JOMAC



Reach for
quality...
there's
GEVAERT!

Cameramen . . . retouchers, dot etchers, strippers . . . shopmen—everybody finds qualities to like in Gevaert. Our film is dependably uniform with wide exposure and developing latitude, and low fog in forcing. Halation is low, too. Gevaert film produces hard dots that are dense and easy to work with. Its toughness and resistance to abrasion permit routine handling, help reduce make-overs!

Cameramen who reach for quality always make sure they find Gevaert at hand. It's their assurance of smoother scheduling, and highest quality line and halftone work on every job!

LITHOLINE O 82p FILM—Maximum contrast, highest sensitivity, latitude and resolving power. Polystyrene base for utmost stability.

O 81 LITHOLINE ORTHO—0.003" thick; thin base for line or screen positives or negatives.

O 82 in regular base, same emulsion—0.006" thick.

P 23 FILM—A fast panchromatic emulsion. Long gradation, high resolving power, wide latitude in exposure and development. Ideal in color separation work.

GRAPHIC P 2 PLATE—for making separation negatives from color transparencies or copy. Same photographic characteristics as P 23 film.

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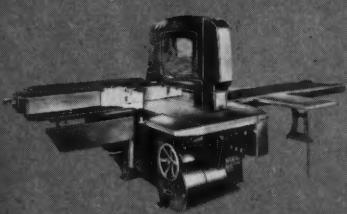
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has the precision and speed that can pick-up some of the time which may have been lost in preceding operations. It trims and cuts apart labels, booklets, catalogs, inserts

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The Brackett offers significant other advantages, too. Straight away travel to reduce handling—mechanically set spacer for maintaining consistent accuracy—retained settings to save time on repeat jobs...these are just a few of its features.

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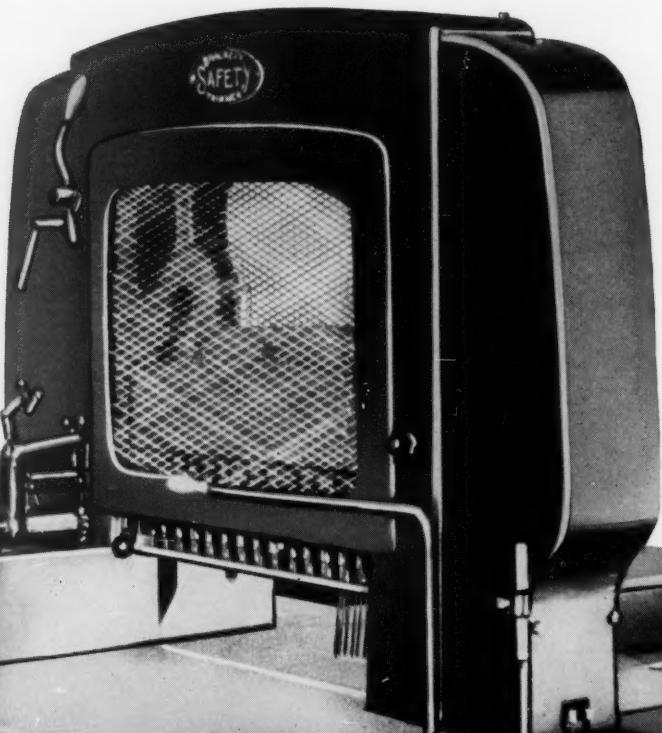
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Fitchburg Vellum



FITCHBURG PAPERS

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- Diamond-White Vellum
- Fitchbrite
- Hillcourt Offset
- Hillcourt Opake
- Montclair Vellum
- Publishers Offset
- Fitchburg Parchment
- Fitchburg Golden Parchment

One of Fitchburg's newer and finer offset papers notable for its brilliant whiteness and excellent reproduction qualities, FITCHBURG VELLUM has earned the respect and commendation of the lithographers who have used it.

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There's no obligation, of course.*

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Four-unit, ATF web-fed offset press at Pacific Press, Inc., of Los Angeles. This equipment handles webs up to 35" in width at speeds of up to 20,000 cylinder revolutions per hour. It prints on both sides of the web

simultaneously (perfecting), delivering thousands of high-quality signatures per hour. It's equally efficient for black & white or color work...can actually print 8 colors at once—4 colors on each side of the web.

why one ATF web-fed offset press leads to another...and another

The press illustrated was installed last summer. Pacific Press, Inc., of Los Angeles is sold on the speed, quality reproduction and folding versatility of their new ATF web-fed offset press. Their second press has now gone into operation at the plant of Phillips & Van Orden in San Francisco.

Pacific Press ordered these two new 4-unit, 8-color publication presses to better serve the need of our ever-expanding western economy. They both are producing single and multi-color, high-quality publication work. More and more publication printers throughout the country are becoming aware of the terrific record these ATF web-fed rotary offset perfecting presses are making in the publication field for top-quality,

high-volume, low-cost reproduction of sales manuals, advertising specialties, magazines, books, packaging materials, folders and newspapers.

Today, ATF offers publication printers:

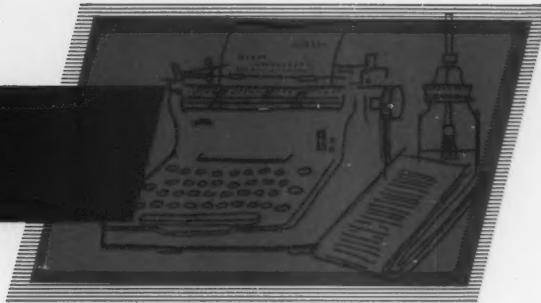
- **Presses famous for quality work, simple operation, and fast changeovers.**
- **Low initial costs, thanks to the standardization of many components.**

Your ATF representative calls on a storehouse of practical experience that helps new users get into full swing as fast as possible. Call him today. Consult your local 'phone directory or contact American Type Founders, 200 Elmora Avenue, Elizabeth, New Jersey.

ATF

better, more profitable printing...from the most complete line of equipment

EDITORIALS



Just Like Kitty Hawk

THE delegates to the NALC convention in Chicago May 2-4 must have felt something like the Wright Brothers did back in 1903 at Kitty Hawk. When the convention was ended at the Palmer House they could say with assurance, "We've got the thing off the ground!"

For, like Wilbur and Orville, the National Association of Litho Clubs has been taxiing around the field expending a lot of energy during its painful formative years. Now there are real signs that it is going to be as successful and do all the things its founders hoped it would 12 years ago.

To be sure, NALC has grown steadily in number of clubs and in total membership. But the constant bickering by regional factions and a few highly vocal critics of past NALC policies has detracted, in some measure, from its success.

At Chicago there was none of this. The program was the best in years, with something of value for every litho club. The speakers all had something to say, and they said it. Best of all, the business meetings ran smoothly, with none of the protracted arguments over trivial issues, such as had marred previous conventions.

The new president, J. Leonard Starkey, of Dayton, came into office with a tangible program, calling for a safety program, promotion of NALC with brochures and advertising, a competition for membership in individual clubs and three concurrent regional meetings of the Council of Administration in place of one meeting.

Furthermore, NALC has finally made arrangements to have mailings of technical and other

material made to every single member by means of a central mailing list.

One more productive year like the past one, capped by a worthwhile convention in Washington next year, should put the association aloft for good.

What Happened to Dry Offset?

WHATEVER became of dry offset? A few years back, particularly in the immediate post-war period, dry offset was looked upon as the coming thing in the graphic arts. Its proponents declared it combined the best features of letterpress and lithography—a relief plate with the offset blanket—yielding a process superior to either of the established parent methods.

Lately, there has been very little talk of dry offset. In fact, at a litho club quiz program a couple months ago, one lithographer was moved to ask "What is dry offset?"

There still are printers using dry offset, but the spark seems to have disappeared. Why? A good answer was offered by Mike Bruno, of LTF, at the DV-TV forum in Philadelphia in May.

"Today there is very little interest in dry offset, at least among lithographers," he stated. "The tremendous advances in offset platemaking since the war, resulting in finer grains, better coatings, finer screens, with less water, have helped remedy what used to be one of the biggest variables in the offset process. Today there is no excuse for a bad plate going to press."

Now, if someone can come up with a really complete solution to the dampening problem, offset will have made another major stride.



Web Offset Section

**discusses production,
marketing problems at Rye, N. Y.**

THE biggest meeting of the Web Offset Section, Printing Industry of America, since the group was organized four years ago was held last month in Rye, N. Y., with accent on production problems and potential markets for web offset printing.

More than 100 printers and press, ink and paper suppliers attended the session June 10-11 at the Westchester Country Club. An unexpected last minute rush of registrations resulted in considerable "doubling-up" of rooms at the club and an annex.

Two visits to leading graphic arts showcases — Time-Life Laboratories at Springdale, and Western Printing & Lithographing Co., Poughkeepsie, — were also on the schedule. These proved to be the high-points of the meeting.

The intense interest in web offset was indicated also by the fact that nearly all those at the meetings attended a long evening session Monday after a full day's program.

The evening session was a con-

tinuation of an afternoon program called "Web Offset Equipment, Materials and Supplies." A variety of problems inherent in web offset were hashed out, most of them having to do with paper. It was at this meeting that a plea was made for increased coordinated research to be supported by the graphic arts industry. The Lithographic Technical Foundation was highly praised for the job it has done "with the little money it has to work with," but many of the lithographers were in agreement that the research program should be expanded and should be more widely publicized.

It was the consensus that, while LTF research has saved lithographers hundreds of thousands of dollars in recent years, "very few printers give the Foundation the credit it deserves for these savings." No formal action was taken by the group on the research question.

Donald R. French, Danner Press of Canton, Inc., Canton, O., was

New Officers of PIA Web Offset Section, left, are R. E. Damon, Atlanta Lithograph, secretary; James N. Johnson, Standard Publishing Found., vice president; Donald R. French, Danner Press, president; and Paul Lyle, Western Printing & Litho., treasurer. At right, Hyman Safran conducts panel.

elected president of the Section, succeeding Hyman Safran, Safran Printing Co., Detroit. Other new officers are James N. Johnson, Standard Publishing Foundation, Cincinnati, vice president; R. E. Damon, Atlanta Lithograph Co., Atlanta, secretary; and Paul Lyle, Western Printing & Lithographing Co., Racine, Wis., treasurer.

Future Markets

Perhaps the most productive session at the meeting was one devoted to potential web offset markets and sales. Mr. French was chairman. Seven panel members described their experiences with web offset and predicted future use. In summary, their suggestions could be listed as follows:

1. Direct mail.
2. Publications (both black and white and color, such as catalogs, where facsimile reproduc-



On the patio at Westchester Country Club (l.-r.) Andrew Palmer and Norman Mack, Van Son Holland Ink; William



A. Krueger, and Harry Quadracci, W. A. Krueger Co.; and Herbert A. Asten, Harris-Seybold. At right, audience at panel.

tion is not required.)

3. Books, especially children's and encyclopedias.
4. Newspapers.

Amos Bethke, Central Printing Department, Time, Inc., thinks direct mail is the next big market for web offset printing. Both Frank Bitetto, of *Readers Digest*, and B. D. Chapman, of Time and Time International, told of its increasing use for the foreign language editions of their publications.

In the case of the *Digest*, eight of 10 million foreign copies are produced by web offset. The remainder are turned out by two letterpress and a gravure plant. Within a year offset will replace the gravure plant and it will also replace the letterpress installations as that equipment becomes

obsolete, Mr. Bitetto stated. Another double five-color web press is on order, he added.

"In Australia, our edition was in the red with gravure. Now, with offset, it's in the black," he declared.

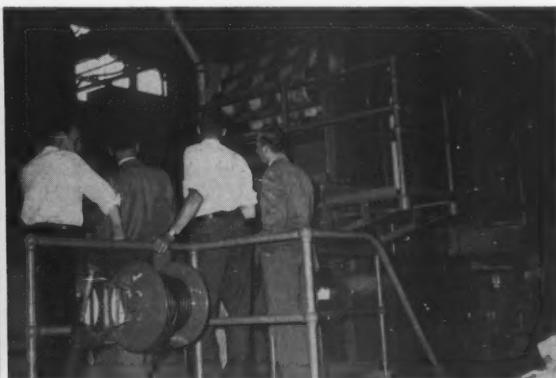
Mr. Chapman said *Time* is produced by web offset because of speed of start up, ease of conversion from letterpress and versatility.

"Web offset will play a greater role in book production, particularly encyclopedias, periodicals and annuals," in the opinion of Albert Drucker, Rand McNally & Co. Paul Lyle suggested that catalogs requiring process color, but not facsimile reproduction, are a logical market for the process. "Web offset with sheet delivery would help open up new markets and make us more competitive," he added.

A. N. Spence, director of publications, Navy Department, told how the Navy turns out a book of codes and cyphers by web offset. "We used to employ 15 to 20 inspectors to check each copy when the job was done on a smaller press, for fear a sheet might be left out. With the web press, the whole book is contained on the web sheet, so it is impossible to drop a page. Our savings on inspection time thus have been great," he explained.

Frank Myrick, editor of *Book Production* magazine, looks for an increasing number of encyclopedias and text books to be printed by web offset. "We can also look at the paperback book market, which will be more accessible when photo-composition is more widely used," he added.

Web Offset lithographers get a close look at the Time-Life scanner, left, and at eight-color web press at Western.



"but recent developments in letterpress printing, such as the nylon plate, will give web printers increased competition."

Production Panel

At the same time, a panel discussion was devoted to production problems. It was moderated by Mr. Johnson. Panel members were the following:

Henry Bergeron, Printing Developments, Inc.; Albert Chape, Standard Publishing Foundation; Charles R. Chevron, Danner Press; Charles W. Cook, Haynes Lithographing Co.; Joseph Gajdos, Western Printing & Lithographing Co., R. E. German, Atlanta Lithograph Co.; Henry Lackner, Inland Press, Inc.; and Ralph Lindsey, U. S. Playing Card Co.

The group handled a variety of questions, most prominent being ghosting, bundling and paper control. Mr. German believes that printers tend to use too much ink if it is weak. "That makes the sheet give between the gaps and can cause ghosting."

Kurt Lehman, of American Type Founders, advised that cylinder-size rollers over and under the sheet between units hold the paper against the blanket, giving better paper control and eliminating ghosting.

On bundling, Mr. German said his company has found that throwaway steel straps have been most successful. An informal survey of panelists and the audience revealed that most lithographers use copperized aluminum plates, while others use deep-etch albumin. On inks, the show of hands indicated all kinds and makes are used.

The other panel, on the first afternoon, dealt with web offset equipment, materials and supplies. It was moderated by Mr. Safran, with the following speakers:

PRESS EQUIPMENT: Robert R. Barker, Hess and Barker; Ben Offen, B. Offen & Co.; Ren Perry, Harris-Seybold Co.; William Raybuck, Frederick H. Levey Co.; E. G. Ryan, George Hantscho, Inc.; Henry C. Webendorfer, American Type Founders. PAPER: Oscar Anderson, International Paper Co.; Philip Evanoff, Mead Papers, Inc.; Frank Kaulakis, Consolidated Power and Paper Co.; Harvey E. Sweetland, St. Regis Paper Co.; and K. L. Wallace, Kimberly-Clark Corp. INK: Robert Lee, Bowers Printing Ink Co.; and Paul H. Whyzmuzis,

Interchemical Corp. PLATES: T. A. Dadisman, PDI.

Following are some quotes from these speakers:

Press

"The ability to change cylinder size has not been fully developed." (Barker)

"We need higher speeds. . . . We used to try to equal four-color letterpress quality. Now we've beaten it." (Perry)

"We've broken through the color barrier." (Webendorfer)

Ovens

"Both heating and cooling are necessary. . . . Thermostats help control drying . . . you don't need refrigeration for the chill rollers; making them bigger will do the job." (Offen)

Paper

"Ground wood papers are cheap but lack strength." (Anderson)

"Coated papers are better than uncoated, even with the problems they involve." (Evanoff)

"We are trying to make better paper to help the printer realize the full potential of his press." (Kaulakis)

"We are trying to cut the water demand of the paper in line with the trend toward using less water in printing . . . we are also trying to improve winding and eliminate lint and dust." (Sweetland)

"More strength and better winding are essential . . . consideration must be given to the relation of ink tack to paper so the sheet can stand the pull at high speeds." (Wallace)

Ink

"New heat set resins with stability and good drying, are needed." (Lee)

Plates

"We foresee a price reduction on copper plated aluminum and steel plates . . . black iron looks good for plates." (Dadisman)

Mr. Dadisman, who was host when the group visited the Springdale Laboratories of Time-Life, also addressed the group at lunch on the first day. In his talk, entitled "Web Offset Looks Ahead," he ventured the opinion that "web offset holds the answer to 68 percent of printing demands in the next 10 years."

He declared that the printed page

"has won the battle with TV, and with population growth and increased advertising in business papers and general magazines, the outlook is bright for web offset. Many jobs," he declared, "are begging for web offset."

Expanded research is vital to the printing industry, according to Mr. Dadisman. "We should be spending two and one-half million dollars just to maintain the status quo, and another two and one-half to move ahead."

Buses took the group to Springdale Monday morning, as the first order of business. There the lithographers were shown a giant rotary letterpress unit, the internal lockup system used in conjunction with this press, nylon plates for letterpress and the much-heralded scanner which will analyze a transparency and make a separation in an hour and five minutes.

In the opinion of research managers at the laboratory, "the real future of offset is in the rotary field. We are trying to do with our letterpress web unit what you can do inherently with offset."

Trip to Poughkeepsie

At the Poughkeepsie, N. Y. plant of Western Printing and Lithographing Co., highlight of the trip, which concluded the meeting, was the new four color perfecting (eight-color) web offset press designed by Harris-Seybold-Cotrell, in cooperation with Western. The web printers saw the mammoth press in action, printing four-color process comic book covers. While the group watched, the automatic paster fed a new roll of paper smoothly into operation, with no slowdown in press speed.

Known as the Harris-Cotrell Model LGC, the press handles a web of paper 50" wide, with a 43" cut-off. It operates at 1,000 feet per minute. It prints four colors in sequence on one side of the paper, then dries and chills the web before putting down the other four colors on the other side. Printing is blanket-to-impression, and the press is a unit type, with a common impression cylinder for each two colors. It is 72½ feet

(Continued on Page 111)

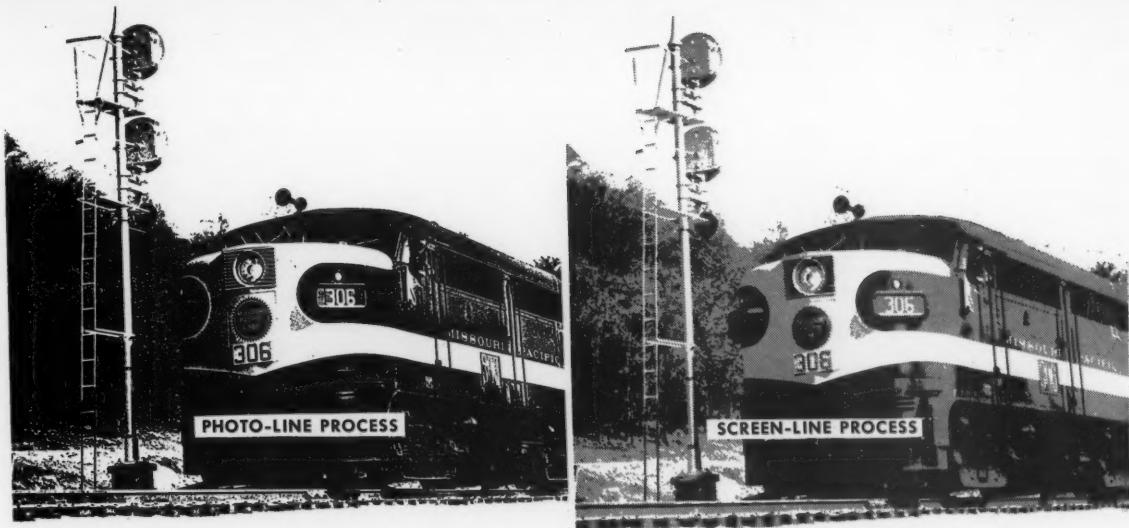


Photo-Line rendering (left) gives a stipple effect to the illustration. *Screen-Line* is another variation, which is effective

for certain types of illustrations. Original photo is at bottom of this page. Both processes save time for the artist.

Photo-Line and Screen-Line

Two aids to lithographic artists

By *Mildred Weiler*

St. Louis Correspondent

OFFSET lithographers in St. Louis who are turning out car cards, brochures, calendars and greeting cards using the Line-Photo process find they get far more sparkle in the illustration and the effect of a new technique that is pleasing to printing buyers.

In addition, buyers save as much as 75 per cent on the tedious detailed drawings that would otherwise be needed for buildings, scenic views or mechanicals.

Line-Photo is a process which Warwick Typographers in St. Louis adapted from Eastman-Kodak to suit their own particular needs. Kodak calls the process Tone Line.

Working with a Line-Photo print an artist can finish a job in an hour or two when it might run 10 to 20 hours if he had to start from scratch.

Line drawings have two drawbacks which too often, have kept them from

being used in spots where they could have served useful purposes:

1. They frequently cost too much to fit the budgets of the programs where they could serve best.
2. With the painstaking art which goes into pen-and-ink drawing, deliveries are frequently too slow.

Recently, however, both these ob-

Original continuous tone photo used for illustrations above. (As reproduced here, of course, it is a halftone)



jections have been surmounted in St. Louis by Line-Photo and Screen-Line, photo-mechanical processes which have become commercially and inexpensively available.

Line-Photo Process

This is how Warwick prepares Line-Photos for the printer:

Step No. 1 calls for a good 8 x 10" photograph with as much tone gradation as possible. The photograph should not have excessive contrast. Photographs made for a catalog or sales portfolio are generally ideal.

A continuous tone copy negative is made from the photo on Kodak Panatomic-X film. Then a contact positive is made from this original negative. The negative and positive are then taped into register back to back into a sort of "sandwich" with the emulsion surfaces on the outside. When the two films are matched the

negative should be dominant so that the end result of a contact print will be a positive. Contact is made against the negative side of the sandwich on Kodalith Super-Ortho film.

The materials are then placed in a portable printing frame mounted in a bracket built onto a 78 rpm record player. Exposure is made under a pinpoint source of colonated light which is directed at the printing frame at about a 45° overhead angle. Colonated light comes from a source which assures that all rays move in straight lines. The turntable is revolving throughout the exposure.

Pen and Ink Effect

The effect of pen and ink lines is achieved by the angled light being refracted through two layers of film. The positive film, which is on top of the "sandwich," serves to screen the tones and creates the line rendition. The end result is a positive film which is contacted to produce a negative, which in turn, serves to create the finished paper print, which may or may not be retouched by the artist.

The use of Line-Photo is very effective with a wide variety of illustrations. An example is a folder done by Warwick for the Mercantile Trust Co., in St. Louis.

Another excellent use of this process is in catalogs. Because the size of the negative used for Line-Photo is 8 x 10" the printing buyer can use as many as 18 items on one negative and he pays only about \$20 for the

Another example of the Photo-Line technique, as employed at Warwick Typographers, St. Louis. Original is at left, results



Old-style 78 rpm record player works fine as a whirler for the "sandwich" consisting of a positive and a negative.

Line-Photo print. If the catalog is produced offset the buyer will need only one line negative for the offset printer. The Line-Photo art of his 18 illustrations and the type can be shot at one time.

In the conventional way, of course, if he used halftone illustrations, he would need two sets of negatives, one for the tone negatives, and the other for the line negatives, and then would strip the two together.

The price range for Line-Photo prints in St. Louis ranges from \$15 to \$35, with a general average of about \$20.

Typical Uses

An unusual effect with Line-Photo was obtained by a buyer who had a black and white car card for a fun-

at right. In some cases a small amount of additional art work is required by the artist to complete a drawing.



eral home on which the advertiser wanted to show his establishment flood-lighted at night. A drawing with such detail would be cost-prohibitive, and it would have been difficult to get the night effect. By using the Line-Photo process the artist retouched the print to get the desired effect and also got all the detail in the building.

Another plus for this process is that it is pleasing to the artist. He's spared all the tedious man hours necessary to create a drawing from scratch, but he can still use all his creative ability to add or paint out details to make the drawing exactly what he wants by use of the Line-Photo process.

Another variation on the Tone Line theme which Warwick calls Screen-Line gives a more shaded or charcoal effect. (Line-Photo shows a stronger contrast and looks more like a straight line drawing in India ink.) The Screen-Line holds blacks firmly but also picks up soft pencil or charcoal effects.

Louis Borlinghaus, head of Warwick's photo department, explained this process.

Screen Line

In Screen-Line the craftsman starts with two negatives on Super Kodalith film. One of these negatives is overexposed—by three or four times—while the other is shot for normal results. The films are developed to

(Continued on Page 113)

Niagara Falls, main attraction near Buffalo, where Craftsmen meet next month.



Aug. 4-7 Craftsmen will

'Shuffle Off to Buffalo'

IT IS expected that a goodly number of lithographers will join their letterpress brethren in an old-fashioned "shuffle off to Buffalo" next month. The occasion will be the 38th annual convention of the International Association of Printing House Craftsmen, Inc., scheduled for the Statler Hotel, Aug. 4-7.

Nearby Niagara Falls, which will be visited on the second day of the convention, is an attraction that is expected to draw many craftsmen and their families for a combination business-pleasure trip.

Full details of speakers and topics were not available at press time but the advance program lists several items of particular interest to lithographers.

These are a talk entitled "Letterpress Printer Adopts Offset," "Visual Economics in the Graphic Arts," and "How an Order is Handled in My

Plant." Other talks will be on letterpress and silk screen methods and problems. In addition, a series of technical movies, on all phases of printing, is scheduled for Monday and Tuesday mornings.

The Craftsmen committee is dressing up the program with such titles as "College of Knowledge Clinics," covering various subjects, including composing room, press room, letterpress, litho, etc. aimed, in the main, at the small and medium sized printers. Coffee breaks will be an added feature.

The trip to Niagara Falls is set for Monday afternoon, with buses leaving at 2:30. A buffet dinner will be served in Queenstown, and the return trip will get underway at 8:30. A stop is planned at Rainbow Bridge to watch the colored searchlights play on the falls.

The convention committee is giv-

ing registrants a chance to enroll their pre-teen and teenage children in the "Junior Craftsmen" program. A number of group activities are being planned for the children, including sightseeing tours, Cinerama, a game party, trip to a museum of science and a local performance of "Guys and Dolls."

The convention will open Aug. 4 with the annual "Wayzgoose" party. Regular programs are scheduled for Monday and Tuesday, concluding Wednesday morning with election of officers. In the afternoon plant visits are on the agenda. A cocktail party and the annual banquet and entertainment will wind things up in the evening according to the preliminary program.

Convention registrations and fees are being handled by J. Stanley Clark, Interchemical Corp., 77 Dingens St., Buffalo 6, N. Y.★

3-Color Direct Separation

5. Proving and Printing

By John M. Lupo, Jr.

Technical Representative
Di Noc Photographic Division
Di Noc Chemical Arts, Inc.

THIS is the final article of our series on three color separation. Those who have followed the series closely, I am sure, have understood color better but no doubt there are some points of confusion. This is quite normal for color is a very complex subject; however experience and study will clear up many of your questions. Remember that color is a science, just as chemistry and physics, and needless to say is something that you cannot learn overnight. The more you think you know it, the more there is to learn about it. Enough of this philosophy though, and let us get back to business.

The Black Printer

Throughout the series, we have considered color reproduction in terms of three colors, namely yellow, magenta and cyan. Therefore you may think it foolish to mention a fourth color, black. Let me explain the reasoning behind this. The occasion will arise many times in which a customer will require type matter to appear in black instead of the customary cyan which is most often used for type in three-color work. This additional color makes the three-color job a four-color one, for the addition of the black type matter adds another color in the printing operation. In other cases, the addition of black will greatly improve the finished print quality which may be the an-

swer to a very fussy customer or a very particular job. This black printer can be made from the existing separation negatives instead of separating from the original transparency.

The three separation negatives are registered together, forming a "sandwich" with the yellow negative first down, followed by the magenta and cyan negatives. The white areas of the sandwich will print heaviest on the finished print. It is in these areas that the black printer will print.

The black printer can be made in one of three ways: (1) sandwich contacted directly to the plate, (2)

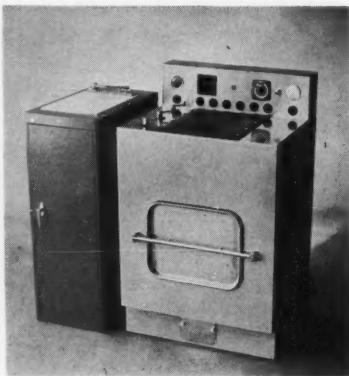
sandwich contacted to regular high contrast ortho film and (3) sandwich contacted to autopositive film.

In the first procedure the contact to the plate presents some problems in standardizing exposure times, lighting distances, etc., however it is of course the easiest and most direct. When the sandwich is contacted to ortho film the result is a positive which must be contacted to a final negative. Although this procedure includes an extra step (because of the contact to a final negative) it does offer latitude in opening or closing the negative in the final contact step. When contacting autopositive film, the sandwich negatives will yield a right reading negative. This will have to be shot out of contact (or emulsion away) from the plate to get a wrong reading negative. It is advisable to use autopositive thin base film when using this procedure for it will minimize the undercut when shooting through the back of the film.

The black printer that we speak of will actually be a ghost or skeleton image; that is, it will print in the shadow and heavier midtone areas, and not in the highlight areas.

The finished negative when examined under a magnifier will look quite weird, for it does not have a true halftone dot pattern, but dots of varied shape. This is due to the sandwich combination and is quite normal for this procedure. It is cus-

Figure 1. Color Splitter manufactured by Roloc Inc., Milwaukee. This device makes separation negatives and color correcting masks for indirect separations by contact printing. Controls include voltage regulator, contact frame (vacuum), controllable light source, filter stops, timer cabinet and register punch.



tomy that in printing in four colors you use the conventional four color angles. The resulting screen angle of the black printer will not show a moire pattern since it prints only in the heavier tones of the original.

The sandwich presents the problem of undercutting because of the three thicknesses of film, but this is minor and can be ignored. To change the order of the sandwich negatives will of course affect the undercutting and consequently you will end up with a slightly different result.

For example, the suggested sandwich layer consisted of yellow, magenta and cyan. This setup gives the greatest undercut to the cyan and consequently the cyan areas (in the shadows and heavy middletones) will print the densest black. If we reverse the sandwich so that we have first cyan, then magenta and yellow, the black printer will then show heaviest in the yellow areas (in the shadows and heavy middletones) and lightest in the cyan. Consequently the arrangement of the sandwich should be considered in terms of the specific job, and adjusted accordingly.

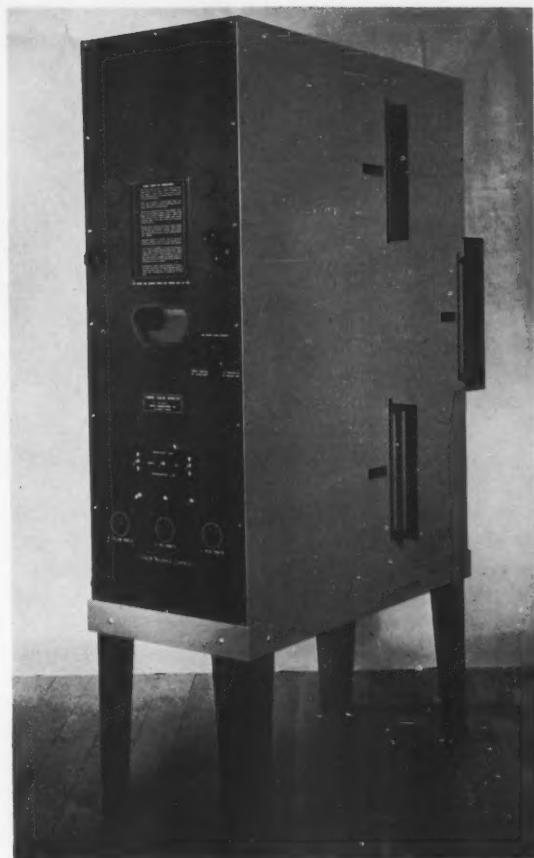
Proving Procedures

On completion of the separation negatives, it may be advisable to prove up the job, either for customer requirements or your own satisfaction with quality. In general we may consider four proving procedures: (1) press proving; (2) colored casein coatings, such as Watercote; (3) diazo sensitized foils such as Colomat; and (4) mechanical proving such as the Curtiss Color Analyst.

Press Proving

Press proving will of course yield exacting results which can be reproduced on the final press run. However this procedure is quite expensive and time consuming and to date has not been used to any great extent in three-color process. In press proving it is normal to prove on a progressive basis, that is one color at a time and then each succeeding color printed on the previous. For example, if we were to prove a three-color job, we would have the following press sheets: yellow, magenta, yellow and

Figure 2. Curtiss Color Analyst. Basically a color camera in reverse, the Curtiss Color Analyst is an optical device which permits three black and white separation positives to be viewed in full color. Used primarily as a proving device in the reproduction of color. Manufactured by Curtiss Labs, Los Angeles.



magenta, cyan and finally the finished three color print of yellow, magenta and cyan.

This finished package is commonly called "progressives." Due to the high costs of press proving, it is normal to gang prove, that is to prove as many jobs as possible on a single set of press plates, thereby reducing the overall expense.

Casein Colored Coatings

By using a procedure such as the Watercote coating, an inexpensive proof can be made in a short time. This system consists of colored casein coatings which are applied by whirler to a piece of white opaque vinyl plastic. The yellow is coated first, exposed to the yellow separation negative, and developed in a sink trough with ammonia water. The vinyl plastic is then recoated in the whirler with a magenta coating, and exposed by surprizing the magenta negative on the same piece of plastic and the pro-

cedure repeated for the cyan. When the colored coating is exposed, light hardens the coating and the result is a positive image.

This procedure has some drawbacks because the colored coatings do not exactly match the inks and consequently consideration should be given to proper evaluation of the Watercote proof to the expected finished result on the press. In addition to the color problem you should also consider that in press printing the shadows will gain considerably, and this will not be readily discernible on the Watercote proof. Thought should also be given to this proof in analyzing its results on the particular type of paper stock used for the final job. (Watercote is manufactured by Direct Reproduction Corp., New York. See also page 41.)

Diazo Coatings

In the Colomat procedure, proving is accomplished by exposure to a

diazotized sensitized acetate sheet. Each sheet will yield a different color; that is, one for the yellow, one for the cyan, etc. The finished sheets are registered to each other and viewed against the paper stock used for printing. The processing and exposure of the Colomat sheets is done in a matter of minutes but here again consideration should be given to the proper evaluation of the finished result with respect to the types of inks used, paper, gain in shadow areas, etc. (Colomat is manufactured by Unitronics Corp., St. Louis)

Curtiss Color Analyst

The Color Analyst is an optical device which permits three black and white color separation positives or prints to be viewed in full color. In use the procedure is as follows: Black and white prints or proofs are made from the screened separation negatives and placed in the Analyst. Viewed through the window, the proofs now are seen in full color. There are additional controls in the device that enable the viewer to adjust the color of the viewing image. These changes can be correlated to adjustments in the separation negatives. The Color Analyst is used quite extensively in newspaper production of color, and is illustrated in Figure 2. (Manufactured by Curtiss Labs., Los Angeles)

Three Color Inks

One of the most important factors in the success of three-color is correct selection of ink. There are at present a wide variety of special inks made by the leading ink manufacturers. However, they do vary to some degree depending on make, and therefore it is advisable to spend some time in evaluating brands. If you are equipped with a reflection densitometer this testing can be very exacting and simple.

Make a chart such as that shown in Figure 4. Then take density readings of the various printing colors with the separation filters, recording the readings in the appropriate boxes. Follow the procedure for all the colors, and make comparisons with the various brands you are testing.

PRINTER	FILTERS		
	Green*	Red	Blue
Yellow			
Magenta			
Cyan			

Figure 4. Enter the density readings taken with a reflection densitometer on the various printing colors.

Select those with the least contamination.

Of course this appears quite simple but don't let it fool you, for there are important points to consider for proper evaluation. First, the samples of the inks must be printed on one type of paper stock, that being the type that you will mainly use. Different stocks will yield different reflection density readings, and falsify your test results. Secondly, it is extremely important that each sample have an equal amount of ink printed on it. If the yellow of one brand is heavier than the yellow of another brand, you will get an inconclusive test result. Instead of press printing of these samples it might be advisable to make draw downs of the ink on the stock you select, for the drawdowns are easy to make and could of course be used for your comparisons. Take these readings on both wet and dry samples, so that when using these readings on press printing you can use the wet readings, knowing how the finished density will read.

Control In Printing

The reflection densitometer is unmatched for standardizing color in the printing operation. Reflection density readings of the color when run on the press indicate to the pressman whether he is carrying too much or too little of a particular color and establish some standard for him to work with.

Suppose, for example, that you establish by trial and error that you will require a certain density read-

ing for each of the colors to render black in its proper value. When press printing you can then compare these readings (in the black areas) to evaluate whether you are carrying the correct amount of color for black or any other color. Here again standardization is the keyword to economy so necessary for the success of the three-color system.

Philosophy of Three-Color

There is quite a misunderstanding about the basic purpose of and market for three-color. I think that the subject needs some clarification. To begin with, three-color does not compete with the quality or the price of facsimile four-color reproduction done with hours of dot etching. It does not compete with any type of color existing at this time. Rather it should be considered as a new medium establishing new markets and outlets for color reproduction. It offers to the printing buyer, who has been using black and white, an inexpensive means of color reproduction for short run color. In numerous instances the need for color is offset by its high costs and consequently the customer has to go to black and white printing. In such cases, three-color is a perfect answer. The buyer can get a good quality of pleasing color at a price that is suited to his budget.

Possibly the philosophy of three-color can be summed up in the following: three-color is a means of pleasant color reproduction, offering economy for short run color, based on standardization of a simplified

color separation and printed procedure.

Costs of Getting Into Color

Starting in color will require the investment of a fair amount of money for various types of equipment. Of course we could not give you any fixed amount for this investment for much will depend on your present facilities and the budget you have established for the venture. However let us consider some of the important items of equipment.

DARKROOM . . . The color darkroom should be fairly well equipped with sufficient space and dark enough for pan films.

SINKS . . . Temperature control sinks are invaluable for color, however patience can satisfy this requirement to some extent. If you are going into high production of color, then temperature control is essential. Temperature control sinks start at about \$800.00.

DIRECT SEPARATION CAMERA . . . The conventional process camera is not recommended for direct separations for numerous reasons, and the investment for a suitable projector or camera for separations will be the largest single item of your investment. In price these will start at about \$2,500 complete with lens, etc., and go as high as \$4,500. Throughout this series we have illustrated various types of these projectors, or cameras, as you might call them.

DENSITOMETER . . . A reflection densitometer is highly recommended for its various uses. In price they start at about \$300 and range up to \$1,000.

MISCELLANEOUS ITEMS . . . Including filters, film, developers, timers, neutral gray screens, a masking setup, etc. This will probably cost about \$200 to \$350 complete.

From these estimates you can see that your minimum investment without a temperature control sink will be about \$3,500, and this is assuming you do have an existing darkroom in suitable condition for color work. The investment of money is just one factor. The greater investment will be in the time spent for



Figure 3. Curtis Contact Printer. A 10x12" contact printer with built in balanced color separation and masking filters, voltage control and timer. Automatically produces balanced and color corrected separation negatives 8x10" or groups of smaller transparencies, for indirect separations. Manufactured by Curtiss Labs, Los Angeles.

labor and materials in working out a standardized procedure.

Through the courtesy of the Davidson Corporation, Brooklyn, we have included with this final article an illustration of the quality of three-color printing. There is an interesting story behind this insert which started back in 1956. The original photograph (a Kodachrome Transparency) was taken my Mettee Studios of Baltimore in March 1956, for the Newhoff-Blumberg agency of that city, illustrating the products of the Bata Shoe Company. The original order was for 2,500 copies and the

complete separations and printing were done by Rose Color Labs., New York. This was initially for a company publication and printed on 8½ x 11" coated stock on a Davidson Model 251 Press.

As an indication of the quality of this particular job, Rose reprinted it as an insert for the *Boot and Recorder*, a trade publication of the shoe industry. The reprint run was 25,000, done four-up on a 17 x 22" Harris. From there it was selected by Davidson Corp. to illustrate this article and the run on this was 10,000.

So, from an initial short run of just 2,500, the total run to date is 37,500 impressions. Rose printed the reprint in *Boot and Shoe Recorder* in four colors, black being necessary for type matter but not used in the tone portion of the print. This case may be considered typical to some extent, for rerun in three color is quite normal, and needless to say reruns always mean greater profit margin.

Notice in the insert, the overall brilliance of contrast and purity of color. This is what we refer to as pleasing color. Comparing it to the transparency you will be able to see some differences of color but these differences are slight and by no means objectionable and could not be readily noticed without the transparency.

Where to Learn Color

At this point I would like to be optimistic and guess that you are probably considering going into color. Your question might be "Where can I learn more about it?" In the metropolitan cities there are numerous schools which conduct courses on color. In New York for example, The New York Trade School in Manhattan conducts day and night courses on various phases of color photography. A course specifically on three-color will start shortly at Manhattan School of Printing. These courses are duplicated across the country in various trade schools and

(Continued on Page 109)

For a summary of the three-color process and a typical job, turn page ►

OUTLINE OF PROCEDURE FOR DIRECT SEPARATION

STEP NO. 1 (*Article No. 2, Modern Lithography, April 1957*)

Take density readings of original in the lightest and darkest areas. Subtract one from the other to get the density range.)

STEP NO. 2 (*Article No. 3, May*)

Arrange transparency or original with color chart and gray scale together with register marks.

STEP NO. 3 (*Article No. 3*)

Make highlight mask, using high contrast ortho film to a maximum density of .55.

STEP NO. 4 (*Article No. 3*)

Register highlight mask to original and make magenta and green filter masks. Calculate mask percentage first by multiplying density range of original by 40 percent (as a start).

STEP NO. 5 (*Article No. 3*)

Register magenta filter mask to original, place in negative holder and make red filter negative (cyan printer), exposing high contrast pan film to a neutral gray screen.

STEP NO. 6 (*Article No. 4, June*)

With magenta filter mask to original, make green filter negative (magenta printer).

STEP NO. 7 (*Article No. 4*)

Register green filter mask to original and expose for blue filter negative (yellow printer).

STEP NO. 8 (Optional for Black Printer) (*Article No. 5 accompanying this list*)

Register separation negatives, yellow first down, then magenta, and cyan. Expose to plate or film for black printer.

3-COLOR PROCESS PRINTED ON DAVIDSON DUAL-LITH



Press: Model 251 DAVIDSON DUAL-LITH
10" x 14" sheet size

Impressions per Hour: 3200

Total Length of Run: 10M

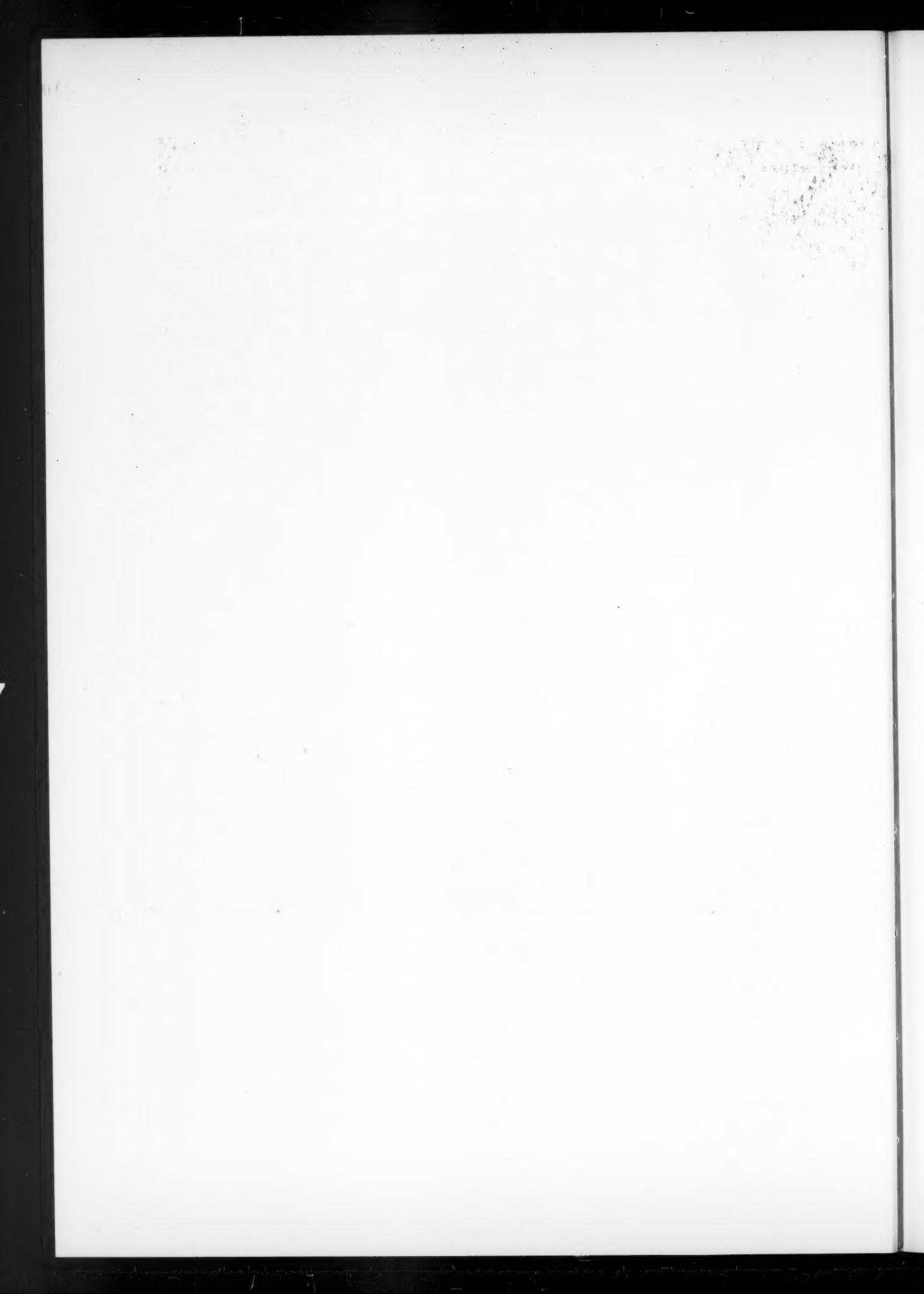
Ink: 3-Color Process Inks

Paper: 65 lb. Kromekote

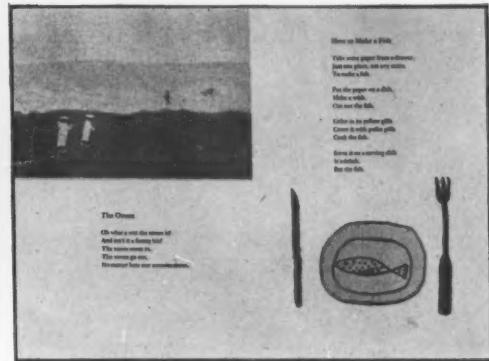
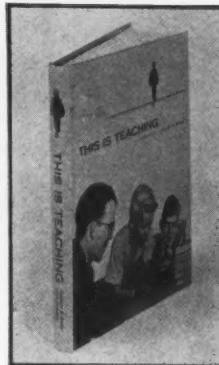
Printed By: Rose Color Laboratories, Inc., N.Y.C.

Photo By: Mettee Studios
Baltimore, Md.

Type: Linotype Spartan Medium and Heavy Italic;
Heading in ProType



Three excellent specimens of lithography are typical of high quality offset work in 50 Books of the Year. Top, page from *Was It a Good Trade?* (Harcourt) lithographed by Colorgraphic Offset Co.; left, cover of *This Is Teaching* (Scott, Foresman) lithographed by Photo Press, Inc.; and right, *New Feather for the Old Goose* (Pantheon) lithographed by Duenewald Printing Corp. Ten books used offset.



50 Books of the Year

Offset's score for '56: 10 of 50

LITHOGRAPHY accounted for 10 (as against seven and nine in the two preceding years) of the 50 Books of the Year 1956 in the annual judging by the American Institute of Graphic Arts.

A three-man jury headed by Albert Erskine, of Random House, also selected five books that were produced in part by lithography.

Here is the scoreboard for the past three years as tallied by ML:

	LP	Comb.	Lith.
1956	35	5	10
1955	38	5	7
1954	33	8	9

In its report, the jury complained that there were a great number of books that had no reason for being submitted. ". . . so many of the 655 books submitted, perhaps more than half of them, should not have been sent in at all; were the kind of book that you pick up, open, and then

after a slight shudder, hastily replace. . . ."

The jury went on to ask that in future contests, categories be set up so that books of each type would compete only with themselves.

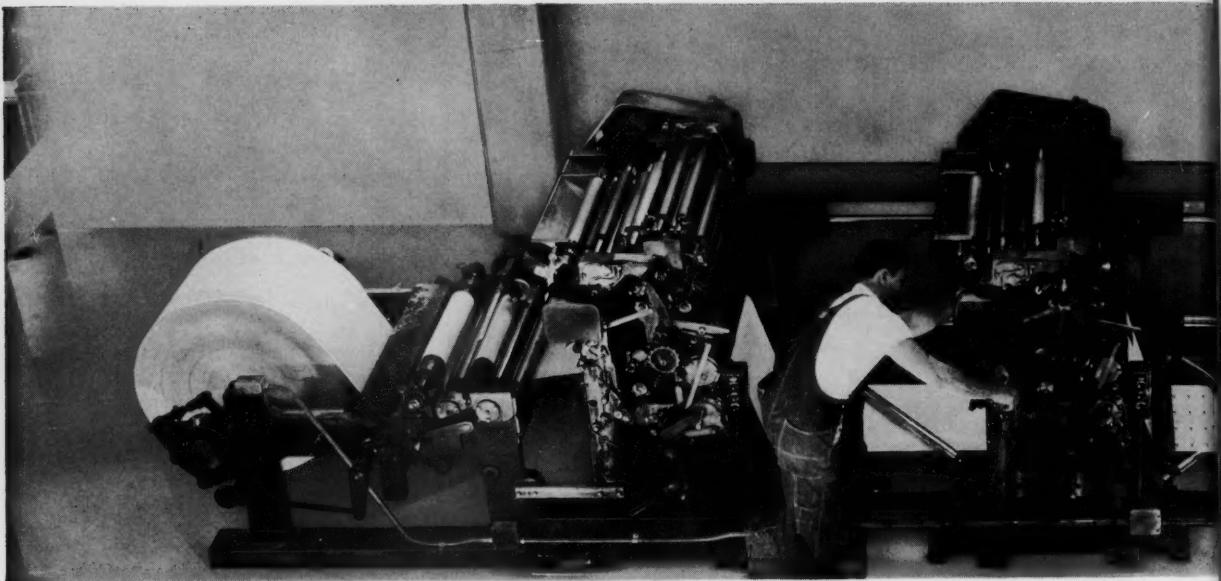
The books were on display last month at AIGA headquarters, 5 East 40th St., New York, at the New York Public Library, and in Boston and Washington, D. C.

Among the 50 books, the following were produced in whole or in part by offset:

Forms and Patterns in Nature (Pantheon), Duenewald Printing Corp.; *The Great Nutrition Puzzle* (Scribner's), Reehl Lithographing Co., Inc.; *Gregg Transcription Simplified, Second Edition* (McGraw-Hill), R. E. Donnelley & Sons Co.; *I Know a Lot of Things* (Harcourt, Brace), Kellogg & Bulkeley; *I Will Tell You of a Town* (Houghton Mifflin), General Offset Co., Inc.; *Lay-*

out (Reinhold), Connecticut Printers, Inc.; *Lion* (Viking), Affiliated Lithographers; *Matisse: 50 Years of His Graphic Art* (George Braziller), Meriden Gravure Co. and Triggs Color Printing Corp.; *New Feathers for the Old Goose* (Pantheon), Duenewald Printing Corp.; *The Railroad Station* (Yale), Meriden Gravure Co.; *Rand McNally's Pioneer Atlas of the American West* (Rand McNally), Rand McNally & Co.; *The 35th Art Director's Annual* (Farrar, Strauss, and Cudahy), Crafton Graphic Co. and Triggs Color Printing Corp.; *This Is Teaching* (Scott, Foresman), Photo Press, Inc.; *Tombs, Temples, and Ancient Art* (Oklahoma), Meriden Gravure Co.; and *Was It a Good Trade?* (Harcourt), Colorgraphic Offset Co.

Graphic Offset Corp., lithographed the handsome awards booklet, itself an excellent example of design and readability.★



Full-length view of the four-unit web fed ATF-Webendorfer offset press in the plant of Lithotype Process Co., San Francisco, which has

Lithotype Co. Adapts Four-Unit

By Ruth Teiser and Catherine Harroun

California Correspondents

LITHOTYPE PROCESS CO. of San Francisco has adapted a four-unit web-fed ATF-Webendorfer press to lithograph specialized packaging materials without sacrificing its versatility. The press, which handles 18" rolls, is used for a variety of commercial color work and also for printing a large volume of four-inch rolls of polyethylene-coated paper to be used for one-portion granulated sugar packets.

Lithotype Process Co. is the outgrowth of a firm that was established in 1939 in a small downtown office to produce business forms on a single Multilith press. Over the years it has moved into increasingly larger quarters, and has installed increasingly larger and speedier presses. Knud Prip, who has owned the firm

since 1941, has led the organization into color work almost exclusively, and it now turns out a great deal of advertising material for agencies and individual clients.

Modern Plant

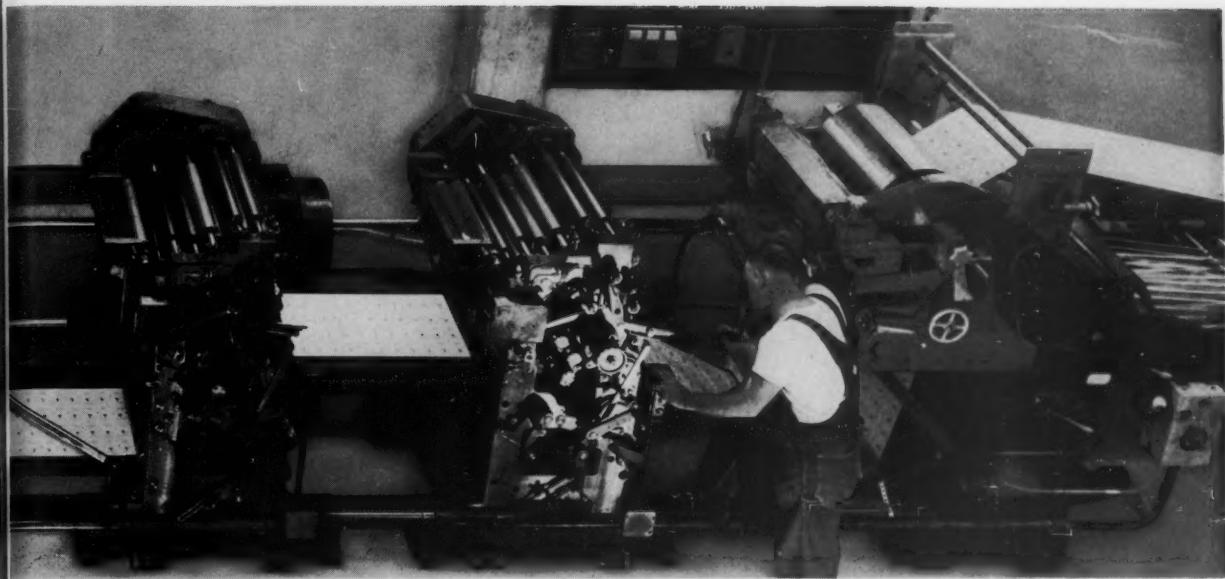
The building, constructed in San Francisco's Potrero district two years ago to Lithotype's own requirements, contains 10,000 square feet of production area on the ground floor, and a 2,000 square-foot balcony for offices and an employees' lunch room. The pressroom contains two recently installed 23" x 29" Consolidated Jewel presses in addition to the rolled Webendorfer installed last year.

As delivered, the Webendorfer contained the four units, sheeter and pile delivery. The sheeter and pile

delivery have been modified and, as adapted, the 34' length of the press now includes also a running roll splicer, slitters and rewinder. The roll splicer, which is constructed on the same principle as a newspaper press splicer, joins on the new roll with the press running at half speed. (The press needs only to be slowed down to this same speed for the operators to check the color register.) The slitters are adjustable to any roll widths. The rewind unit has a tension control that prevents the lithographed paper from wrinkling as it is rerolled.

400 Feet a Minute

The press operates at a full speed of about 400 feet a minute, equivalent to 12,000 sheets an hour. Because of



been adapted by the company to lithograph specialized packaging materials without sacrificing its versatility. It uses 18" rolls.

Web Press for Special Packaging

comparatively long make-ready and clean-up time, it is considered uneconomical to operate the press for less than full-day jobs. It is not a perfecting press, but two of the units are equipped with turn-bars. There are individual adjustments on each unit which can be changed while the press is in operation.

Sugar Packets

The sugar packets produced for the California & Hawaiian Sugar Refining Corp. and its restaurant, resort and transportation line customers, are in two to four colors. They carry vignettes of a variety of subjects (hotel and beach scenes, flowers, etc.) measuring about 1 x 1½", some made from 35 mm. Kodachrome transpar-

encies. Orders are often fairly small and are run four-up.

Special Paper, Inks

Sixteen-inch rolls of polyethylene-coated paper are ordered in carload lots. Special vegetable base inks are compounded for this work by a local ink manufacturer. Rolls are lithographed, slit in four-inch widths, and rewound for delivery to the California & Hawaiian plant at Crockett, Cal. There they are fed directly into automatic machines to be formed (by heat sealing), cut, and filled with two-teaspoon portions of sugar. Completed, they turn up on diners' tables throughout the West and often beyond.

Plates used on the Webendorfer press for this work, and for advertis-

ing pieces, booklets, coupons, etc., are presensitized, bi-metal or albumen, depending upon the type of job and length of run.

"We bend them in a jig, since precision is very important, and we get excellent register," reports Mr. Prip.

Other Equipment

Camera and platemaking facilities are designed to handle future work up to 35" x 45" plate size. Equipment includes a 54" Monotype photo-composing machine, a 48" plate whirler, and a plate squaring shear which is a rebuilt sheet metal guillotine.

Lithotype Process Co. employs nearly 20 people. Karl Hoffman, well known lithography technician, recently joined the firm as supervisor of quality control.★



HIRING GOOD EMPLOYES

the odds are against you!

By *Kenneth E. Schweiger*

Asst. Dir. Industrial Relations, Lithographers National Assoc.
and

Charles Shapiro

Educational Director, Lithographic Technical Foundation

EXPERIENCE over the years and across the nation has proved that the average employer plays a form of roulette when hiring new employees. Actually, the odds are stacked against you before you even begin unless you observe some absolute requirements. These are:

1. That you recruit from a large source of potential employees.

Photo at top of page shows art department at new Universal Printing Co. plant in St. Louis.

2. That you interview skillfully and discriminately.
3. That you have an intimate knowledge of the job for which you are recruiting.
4. That you check thoroughly on the previous experience, attitude, and work habits of the prospective employee.

If you diligently apply yourself to these four requirements when hiring a new employee, the odds in favor of your getting a good man are in the nature of 5:3. Any relaxation in carrying out even one of the four,

results in a substantial decrease in the odds. Obviously, what is needed is some sort of prop to guarantee at least a minimum of qualifications in the newly hired man.

Uppling the Odds

Improvement of these odds is possible by the addition of another selection technique—aptitude tests. There is a tendency among smaller businessmen to be skeptical about aptitude testing; but it is an irrevocable fact that a tremendous number of hard-headed and realistic businessmen,

operating successful companies, have found them to be an indispensable part of their hiring procedure.

The preponderance of these firms report an increase in the odds of hiring a good man from the 5:3 or worse, to as high as 8:2 subsequent to the installation of an aptitude testing program. This is a substantial increase in the efficiency of selecting new employees and represents money-in-the-bank to you and your company.

How You Save Money

The great advantage of hiring new employees by means of aptitude tests as a part of an integrated selection program, is the fact that they enable you to select those applicants having the native abilities required to satisfactorily learn lithographic skills. Other things being equal, this results in:

1. A reduction in training time.
2. A decrease in the number of "quits" or turnover.
3. An increase in productivity.
4. Better quality of production.
5. An improvement in employee morale.

These are formidable advantages and it would appear that aptitude tests can be the proverbial little pill to cure your employment ills, but unfortunately this is not wholly true. Aptitude tests are not a panacea; just one step in the overall personnel selection procedure. The other four steps mentioned in the first paragraph are still not only necessary, but absolutely essential. Aptitude tests, in a way, can be compared with a blood pressure reading taken by a doctor during a physical examination.

A satisfactory reading is indicative of good health but not positive proof in itself. The doctor must make additional checks of the heart, lungs and other organs before he can make a prediction concerning the future state of your health. Important to keep in mind is the fact that aptitude tests do not measure achievement or learned skills. They measure an individual's capacity to learn a skill or technique.

That is why it is possible to relate the "skills and abilities" of a journeyman to the "capacities" of an appli-

cant and how, by means of aptitude tests, a prediction can be made as to the probability of his successfully learning a lithographic skill.

Improper Selection Costs Money

We have said that improper selection of personnel can cost you money. But just how much money are we talking about? Are we stirring up a tempest in a teapot? National surveys indicate that a mechanic's helper quitting his job during the first year of his employment costs the employer \$700 in terms of hiring, training and replacement costs. In other industries the average "mechanic's helper" requires a relatively small capital investment for his work station.

In the lithographic industry, however, the average capital investment per employee is in the nature of \$9,000. Therefore, in addition to the \$700, more money is lost to the employer because expensive machinery is standing idle and/or overtime must be paid to other workers to fill the lost employee's shoes until a replacement can be found.

Estimates run as high as \$10,000 to \$15,000 for the loss of a highly skilled, long-service employee—representing your investment in this man in terms of training, know-how and contribution to your operation. Add to this the cost of recruiting, hiring, and breaking-in of a new journeyman. Another survey reveals that one out of every five manufacturing employees quits during each year. These facts make for a rather disturbing picture and illustrate the size and kind of dollar losses we are talking about.

Still Interested?

If you have read this far, you must be somewhat interested in the subject, and this seems a good place to anticipate a question. Yes, it is true that the development and installation of a tailor-made testing program on an individual plant basis is initially expensive. On the other hand, it is much more costly in the long run to ignore the advantages that such a program can provide. The solution to this problem in our industry is for the program to be undertaken

through the cooperative efforts of a number of interested national and local associations. That is exactly what is being done.

How It Started

Hard on the heels of World War II, the lithographic industry faced the problem of a tremendous demand for skilled craftsmen. Through the G. I. Bill of Rights, the government encouraged on-the-job training of veterans. But the big problem was how to select the veteran suited for a particular industry. The guidance program set up under the Veterans Administration was good so far as it went, but the counselors were versed in the great mass production industries and not in our craft industry. The Lithographic Technical Foundation, charged with the responsibility of preparing and producing approved training materials for apprenticeship schools and on-the-job-training programs, recognized this problem.

In 1947, Dr. Marion Steele of New York University was retained by L.T.F. to prepare a report on aptitude testing for the lithographic industry. Unfortunately, lack of funds and manpower made it impossible to carry out Dr. Steele's recommendations. In 1949 the project was revived by LTF's educational department. Shortly thereafter the Education Council of the Graphic Arts Industry was organized, and at the recommendation of the manager of the educational department, LTF's board suggested that the Education Council might take over the project.

The Council, being a newly created organization, unfortunately had neither staff nor funds to proceed at that time. Printing Industry of America, Inc., recognized the merits of LTF's recommendations, and its Union Employers Section got a program started, primarily in the letterpress, photo-engraving and bindery fields. By 1956, aptitude testing, as a part of personnel selection, was being used in about eight cities for a limited number of such job classifications.

In 1956, the Board of Directors of both the Lithographers National As-

sociation and LTF authorized a concerted effort on the problem of getting aptitude tests developed for the lithographic industry. As a result, a broad informal committee, representing all interests, was set up to develop this program. This committee includes, in addition to these two groups, PIA, the Education Council, National Association of Photo-Lithographers, and the United States Employment Service (U.S.E.S.)

The U.S.E.S. is a division of the Department of Labor and has, among other responsibilities, the job of co-operating with industry groups in developing and installing aptitude testing programs. To that end, lithographic industry groups requested that U.S.E.S. make its technical services available.

Defining the Target

First step in the development of aptitude test batteries in an industry is to identify the jobs for which tests are to be designed. In the lithographic industry, this proved to be a difficult job, since an analysis disclosed that there are more than 50 diverse job titles in the preparatory stages of production alone. Obviously, it would be uneconomical and unnecessary to develop that many batteries of tests. It was therefore decided to consolidate many of these job titles into a relatively few groups which we now call *job-families*.

This consolidation was made possible through recognition of the fact that many jobs have underlying native abilities which are common to all. Jobs having a common denominator were assigned to a particular job-family, which was then given an overall descriptive title.

The job-family title now represents a combination of all the important native abilities required for success in each of the subordinate jobs, as well as those aptitudes belonging exclusively to the "top," or most skilled job of each family. This system allows us to concentrate on a relatively few job-families instead of having to deal with a multitude of overlapping job titles which vary not only geographically but from shop to shop

within the same area. Six primary job-families have been set up:

1. Artists.
2. Cameramen.
3. Strippers.
4. Pressmen.
5. Platemakers.
6. Proofers.
7. Others to be developed as experience indicates.

(NOTE: The establishment of these job-families is only for the purpose of developing aptitude test batteries at the applicant-apprentice level and in no way eliminates the use of specific job titles within the job-families insofar as individual plant operations are concerned.)

Describing Job-Families

In order to determine which individual tests should be initially included in the experimental test batteries for the litho industry, detailed analyses and descriptions of the job-families had to be made. Through the joint efforts of the LNA and LTF these have already been completed. LTF and LNA have sent copies to lithographic industry representatives for comments and criticisms in order to insure the accuracy of their content.

The next step is for the U.S.E.S. to administer the experimental batteries of aptitude tests to as many journeymen as possible in each of the job-families. By finding out which aptitudes are possessed by the well-qualified journeymen, we can then set up the specific test batteries for applicants for apprenticeship jobs.

Hypothetically, it would seem logical to expect a good pressman, for instance, to possess high degrees of aptitudes in such traits as mechanical ability, color discrimination, eye-hand coordination and others. At the present time, this is only an assumption and remains to be substantiated by means of the aptitude test batteries. If this proves to be a correct assumption, we would expect an applicant for an apprentice-pressman's job also to score high in these traits. This reasoning is applied to all other job-families.

After having completed the procedure for all other job-families, the test batteries will be made available

to the industry for general use. As more and more apprentices are selected by means of these aptitude tests, supervisory evaluations of these apprentices, as they progress towards and perhaps beyond journeyman status, will be recorded. Continuing reappraisals will be made in the light of these records, and refinements will be made in the original test batteries to make them even better predictive devices.

Not All Get to the Top

Obviously, not all applicants "passing" these aptitude tests will become journeymen, because there will be "natural" factors at work, such as individual motivation and temperament, tending to minimize this possibility. Once set up, the advantages of these test batteries will be made available to all lithographers through the more than 1,300 offices of the U.S.E.S. and through trade associations.

Establishment of an aptitude testing program is an attempt to make available to the lithographic industry the same advantages accruing to the industrial giants of our economy where aptitude testing is an established fact. When such a program is intelligently conceived, competently administered and properly interpreted, the results can mean a considerable saving to your company through fewer quits and misplacements, a more stable work force, reduction of overall interviewing time, shortening of training time and a more favorable ratio in selecting good employees.★

Don't play roulette when hiring employees; let aptitude tests help do the job, say the authors.

Lithographer describes use of

Watercote

for proofing color jobs

By *Bernard Gasser*
Parthenon Press, Nashville, Tenn.

MR. GASSER'S talk on the Watercote proofing method was preceded at the Craftmen's conference by an informative introduction by Lewis G. Akin, of Parthenon, who recounted some earlier proofing methods. "The litho process had many advantages to offer but one thing lacking which the customer had a reason to complain about was not being able to see a proof until it was on the press and ready to go," he said. "Machine time is quite costly and it did not take the offset printer

long to see that he must find some way of getting the customer's OK before the job went to press."

Mr. Akin mentioned the Azo, or Velox, method, then went on to discuss Vandyke, or silver point proofing, and the first introduction into color proofing with the Ozalid positive-to-positive method. Lastly he mentioned Technifax. He listed the advantages and disadvantages of each method and said that Parthenon Press started to work with the Watercote method several

years ago with excellent results. Mr. Gasser, who came to Parthenon from Switzerland, has worked with the Watercote process at the plant for several years. Watercote is manufactured by Direct Reproduction Corp., 811 Union St., Brooklyn, N. Y. While it is not a new process, having been developed and patented in the early 'fifties, it has been the subject of many queries from ML readers, and for that reason, this presentation is published on these pages.

WATERCOTE is a medium for proofing a job in its correct colors before any printing plates are made. In offset lithography it can very well replace the customary Vandyke proofs with the great advantage of a non-stretching support. Also, all color breaks will show correctly at a glance—there are no extra steps involved in stripping the negatives. Any job that is made up to make albumin plates will make a good Watercote proof.

Many proofs can be made in Watercote with a .005" plastic base. Heavier plastic sheeting is available for jobs that don't have to be folded or bound. We prefer the .010" plastic, because it is more resistant to tearing and kinking. From a distance, the proof will look exactly like a printed sheet, but a closer inspection will reveal a sharpness that cannot be attained by any other printing process.

At Parthenon Press we think of Watercote as a fast, inexpensive way to evaluate a job before costly plates are made. At present, all our four-color process work is being proofed

by Watercote and many of our two-color jobs go straight to the customer for color O.K. The Methodist Weekly Church Bulletins, most of them with duotone illustrations, all are color okayed with a Watercote proof. Cost conscious customers will like the idea of seeing an inexpensive, yet accurate proof without having to pay for extra proof plates.

In principle, Watercote works like albumin platemaking. Except, as you would use metal as a support you have an opaque, white plastic sheet, which has a very fine grain on one side. The sensitive coating bears the pigment of the desired color and is coated on to the plastic in a whirler. The negative to be proofed is exposed in contact with the coated plastic sheet in a vacuum printing frame against an arc light. After that, it is flushed with a weak ammonia solution, rinsed with water and, presto, there is your image in any color you decided to have it.

Well, it is not quite that easy, as we have found out since we started using this way of proofing our four-color process work. Most lithographers are probably all too familiar with the bugs of albumin platemaking. Watercote is prone to the very same shortcomings, but, don't let that dis-

courage you; with a little work and ingenuity you will be able to make it work in your own plant, as we did in ours.

The humidity—exposure factor is the thing to be most closely watched. The whirler speed, once determined, cannot be varied, as the solid color density will be altered. Hence only the exposure time can be changed to compensate for different R.H. readings. Test exposures should be made at a relative humidity of about 48 to 50 per cent for ideal results. A continuous tone step tablet or an LTF sensitivity guide and a halftone gray scale are essentials for a successful series of test exposures. The exposure time will be correct when, step for step, the halftone gray scale reproduces as you would like it to print on the press. This means no undue spread in the highlights and middletones and no filling in of shadow values. Next observe where the sensitivity guide breaks. The continuous tone scale should break at the same step for every color exposed. This test will give you the correct exposure time for the particular color tested.

Now comes the rub. If you are out to reproduce the halftone values accurately, you will have to bear in mind

From a talk presented at the Seventh District Conference of the International Association of Printing House Craftsmen, Nashville, May 18, 1957.

that every Watercote color has a different sensitivity to arc light. That makes it necessary to establish a basic exposure time for every color you plan to use. This is a one time effort, however. Once established, these exposure times remain unchanged at the same R.H. A proportion curve or a sliding scale can easily be worked out for lowering or increasing exposure times at higher or lower R.H. readings. If you plan to work with process colors, it will be well worth the effort to establish exposure ratios for different R.H. readings.

Let us now go through the steps of creating a Watercote proof of a four-color process job. We have four negatives representing the yellow, blue, red and black printers. They are punched in register to fit similar holes in the plastic sheet. An office punch making $\frac{1}{8}$ " diameter holes at a fixed distance will do fine. Either Carlson or ByChrome register pins the negatives to the holes in the can be used for the registration of plastic. We use the punch and pins system because it helps speed up the registering of the different colors, a fact to be appreciated when we have several subjects ganged on the same sheet.

The white plastic sheet (the trade name for it is Loftrite) must now be cleaned with a weak ammonia solution. No pressure should be used, as this tends to destroy or scratch the finely grained surface. Just flush and swab lightly with a piece of cotton. Set the horizontal whirler at about 65 RPM. If you have a vertical whirler it will work better at 75 RPM. Put the clean plastic sheet in it and start whirling.

Flush with a pint of water and follow with the well shaken and filtered Watercote emulsion, in this case Black. Let it dry, preferably without heat. Then register the black printer negative to the holes in the plastic with the help of the pins and expose.

During this time we can get prepared for the next color or coat the next sheet, if more than one proof is to be made. After the exposure, flush the sheet with the same weak ammonia solution, rinse with water and swab lightly with cotton. Check the sen-



Bernard Gasser

sitivity guide to see that it breaks at the desired step.

We are now ready to coat the next color (blue) on top of it, repeating the same cycle for each color. It will not be necessary to dry the sheet in between coatings. After cleaning out one color, while still wet, you put the sheet right back into the whirler to be coated with the next emulsion. After the last color is down, blot the finished job between clean newsprint. If the job is to print on regular offset stock, leave the Watercote proof just as it is. If a coated paper should be used on the final press run, spray it with a clear lacquer and watch the colors snap out.

You may have noticed that the order of the process colors is not the conventional sequence. The regular yellow, blue, red, black sequence cannot be followed for these two main reasons: First the black would take an excessively long exposure time to stick on top of the other three colors, so we put it down first.

Second: the blue does not like to trap on top of the yellow.

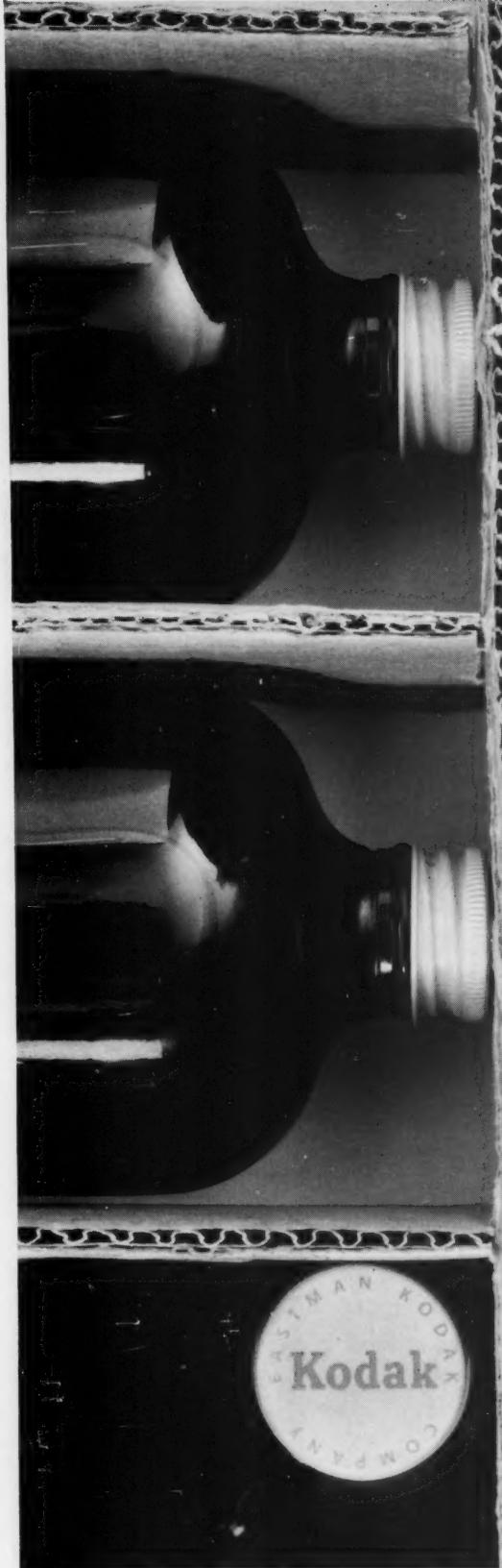
So, by trial and error we have found out that the best sequence for Watercote process colors is black, blue, yellow, red.

Now, for the average user of Watercote the tolerances may not have to be kept as rigid as it may seem from the foregoing explanation. If the majority of jobs to be proofed are just simple line work the exposure latitude is really wide enough to accommodate some of the colors in groups, i.e. all the shades of blue could be shot at the same exposure time, all the hues of red and orange grouped under another exposure and so on. You don't have to test every one of the 36 colors. After a few trials, the user will soon get the feel of the situation and will be able to pick the correct exposure for a certain color. As already mentioned, Watercote colors are available in 36 different hues ready to coat on to the plastic sheet. It will be easy to mix any additional shades from these.

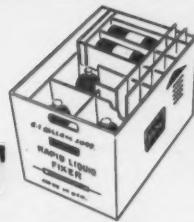
As far as cost is concerned, a four color Watercote proof will cost about as much as making four albumin plates for the proof press. But instead of going to press with it you have the finished proof right there.

I would say that we at Parthenon think this process is ideally suited for the plants making their own color separations, yet not big enough to warrant buying a proof press. It will enable them to see their work proofed and customer-okayed before any plates are made and, if anything should go wrong with the separations it will be detected before costly press makeready is wasted on it. It also keeps the troubles in the plate department and lets you rework the positives, before a larger group of uninitiated persons start picking apart a possibly not so good first press proof.★

How a Nashville lithographer proves a job in colors before plates are made



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If you do not have a copy, be sure to write for "Kodak Materials for the Graphic Arts," listing Kodak chemical preparations as well as all other Kodak Graphic Arts materials.

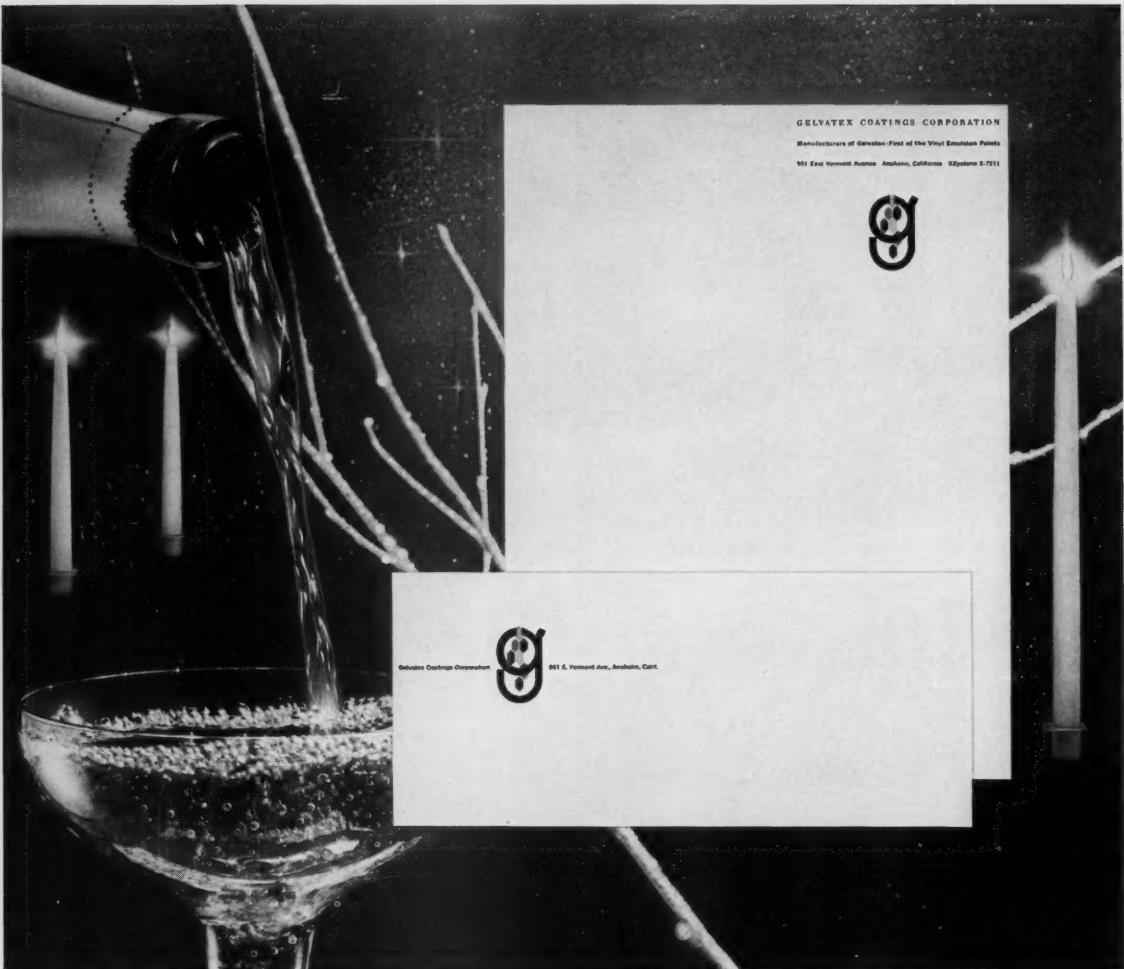
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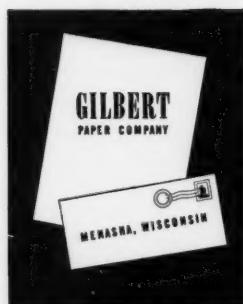


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PHOTOGRAPHIC CLINIC

Q: I recently had to use a 20-year-old process lens and could not get satisfactory halftones. The highlights would not close properly and the dots all had a lot of halation. Could the lens have been responsible for my poor results? During this experience one of the arc lamps burned with a steady flaring flame. Could this also have been a factor?

S. R., FAR ROCKAWAY, N. Y.

A: If the lens in question was severely scratched, clouded or otherwise optically defective, it could most certainly have been at fault. A lens in such condition would have a high flare factor and could cause the defects you mention. However, screen distance, the condition of the screen, the halftone system used (exposure, stop-relationship, etc.), film and processing all could have contributed. It would be necessary to rule out the above before the lens could be condemned as the sole source of your poor results.

The best way to establish the performance of a lens is to make a set of practical comparison tests under controlled conditions, using the doubtful lens and a lens known to give satisfactory results. In making such tests keep all the factors of the test—copy, camera setting (focus), screen, screen distance, exposure, film and processing—identical for both lenses. Any observed difference in results must then be due to the lenses alone. Under certain conditions the flaring arc-lamp could have contributed to the problem, but without additional facts it is not possible to make a definite analysis in this instance. But one thing is certain, if your arc lamps are subject to erratic

It is impossible for Mr. Paschal to give personal replies by mail, but all questions will be answered in this column as soon after receipt as possible. The columnist also is available to the trade as a consultant for more complex litho problems.

behavior they are causing a number of problems in your daily operations.

Color Mixtures

Q: I've seen references to two kinds of color mixture: additive and subtractive. What's the difference, and which is more important in photography and lithography?

R.J.M., CANTON, O.

A: The difference between the two types of mixture is best understood when one realizes that color and light are one and the same. Light is that form of radiant energy which stimulates our "seeing" process. So called "white light" is a mixture of all the wavelengths of visible radiant energy in some balanced proportion. Colored light, on the other hand, is either an unbalanced mixture of radiant energy, or a limited group of wavelengths.

If we mix two beams of colored light as, for example, red and blue, the mixture will be different from either of the two original beams. In this case, the perceived color will be magenta. Also, the total energy of the mixture will be the sum of the energy of the two individual beams.

By using three beams, red, green

and blue, we can simulate the entire color gamut. The three beams at equal strength will make white. This type of mixture is additive.

Additive mixture is possible in other ways. If a disc, which has been segmented into areas of different colors, is rotated at high speed, the eye sees the additive result. In this case the eye is unable to distinguish the separate colors and sees the additive mixture created by the high speed time sequence.

Likewise, an area consisting of alternate dots or squares of different colors will, when viewed at a sufficient distance, fuse into a solid color—the additive mixture of the color areas. In this instance, because of the distance, the eye is unable to resolve the individual color areas and perceives the composite pattern additively. (In these latter two instances, the perceived color of the individual areas is due to a subtractive process—only the mixture is additive).

In subtractive color we start out with radiant energy and a selective absorber (colorant). The colorant, which may be paint, ink, etc., absorbs some of the radiant energy and reflects (or transmits) the remainder. The absorbing quality of the colorant is a fixed function—the amount of energy reflected depends upon the proportion of such wavelengths in the illuminant.

This explains why the same color looks different in daylight and artificial light. A red ink patch appears red when illuminated with white light because the colorant has absorbed all but the red rays present in the white light. If the light did not contain

(Continued on Page 111)



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PRODUCTION CLINIC

By Theodore Makarius



Embossing, Curl, Refrigerated Plates

Sheets Embossing

Q: I enclose herewith four pictures and samples of printed sheets showing a progressive embossing of the printed areas starting slightly at the gripper edge and increasing from the middle to the back end of the sheet so that it is impossible to get them properly jogged in the cutting machine. Will you please tell me how to avoid this embossing and what the reason is for the trouble?

A.O., NINOVE, BELGIUM

A: Your problem of sheets puffing, or as you say, embossing, is a very difficult one to solve. It is caused by several of the unavoidable methods employed in offset printing.

To start with, when ink is put on the paper in strips of various widths and stacked in large loads such as shown in your accompanying photos, the increased thickness in the area of the inked image is in itself enough to distort the sheet.

Secondly, the slightest pull on the sheet leaving the rubber blanket will tend to puff the image area. Next, the moisture of the ink as it is printed will swell the paper in the same area.

The best solution to the problem is first to run smaller loads or put flat boards between lifts of one thousand sheets to keep them flat as possible. Second, use ink with as little tack as possible to prevent excess pull on the sheet as it leaves the blanket. Third, give the sheets enough time to dry out before cutting. (The sheets

you sent were perfectly flat by the time I received them.)

Refrigerated Plates

Q: In Germany I noticed a flat bed litho press used for color poster work. This press had a refrigeration unit with cooling coils through the plate bed. Temperature was automatically controlled in coordination with relative humidity of the room. The plate was very clean and so was the work produced. Has this dampening system been tried in the states?

R.E.D., GUNTER AFB

A: The system of refrigerating plate cylinders has been used in this country but evidently with little or no success because for the past 20 years there has been no sign of it in use. There may be some isolated exception but I have not been able to locate any such press. However, the press I refer to was a cylinder press of the high speed type.

It is possible that after this appears in print we may hear from someone with more knowledge of the use of this type of press.

Setting Back Pressure

Q: What is your method for setting back pressure or the impression cylinder? While I was working on a large two-color press, a machinist set the dial so the sheet being run would be "nuked up" and pressure set for same. For example, when the stock is 12 point, the back pressure is 12

points. Would this method work on smaller presses?

G.I., BROOKLYN

A: On any press, regardless of make, the pressure between the blanket and impression cylinder should be sufficient to print a firm smooth dot or solid. The amount of squeeze depends on the surface of the paper but should rarely exceed .004". The principal feature in setting the pressure properly is that the cylinders remain parallel to each other so that both sides of the sheet have the same pressure.

As to the setting of the dial, if it is desired to have the numbers on the dial correspond with the thickness of the paper, the pressure should be set at .004" squeeze; then the dial set at zero with no sheet between the cylinders.

Trouble with Solids

Q: I have a lot of trouble running a true solid. At first thought it was washing out, but when I cut down on the water the plate started to tint. I run a 14 x 20" press and use coated stock similar to that used in Modern Lithography. I hope you can give me some helpful hints.

M.G. BROOKLYN

A: From what you say I have very little to go on. You say you have trouble running a solid, but it would be better if you enclosed a printed

(Continued on Page 111)

"... thanks for the successful solutions to my problems"

SEVERAL months ago reader Samuel Rice, in Far Rockaway, N.Y., asked a series of questions on camera problems which were bothering him in his shop. Herbert P. Paschel, our Photo Clinic columnist, suggested solutions. It wasn't long before Mr. Rice wrote back, telling Mr. Paschel that he had applied the solutions and all were successful! Following are some excerpts from Mr. Rice's letter:

"... in accordance with your suggestion I checked the bed and found it off level. A check of the ground glass, lensboard and copy-board showed that these were also not at true right angles to the bed. The camera manufacturer sent his mechanic to correct the faults and now the horizontal center position re-

mains the same in all camera focuses . . .

"... as you stated dust was being created in the dark room by the operation of an air exhaust fan. I shut this down while making positives and this, together with the anti-static cloth you suggested, has eliminated the problem (of dust spots on contact positives).

"... on the problem of difficulty in closing highlights, I replaced the troublesome lens . . . and my results now are perfect. When I am plagued with pinholes, I add a wetting agent to the developer, as you suggested, and it overcomes the problem . . .

"... thanks for the successful solutions to my problems."

In past months, many of you have availed yourselves of the services of our two regular columnists, *Theodore C. Makarius* (Press Clinic) and *Herbert P. Paschel* (Photographic Clinic). The purpose of this page is to remind you that if you have a troublesome problem regarding press or camera, these specialists are ready to help you solve it. If you are a subscriber to ML and have a question, why not jot it down on the coupon below and send it along to us? We'll be glad to help you, and the service is free.

MODERN LITHOGRAPHY

Box 31, Caldwell, N. J.

Mr. Makarius
(Press)

Mr. Paschel
(Photography)

My Question: _____

(Questions will not be answered by mail, but in an early issue of Modern Lithography)

Name

(Only your initials will be used)

Company

Address



*how to get
practically
a free ride
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TECHNICAL SECTION



Automatic Reader for Typesetting?

By *Clyde C. Heasly, Jr.*

Director of Planning
Intelligent Machines Research Corp.

DEVELOPMENT of IMR Analyzing Readers* character sensing machines was based on the conviction that since digital computers could be made to perform the logical operations required in arithmetic, they could also be made to perform the logical operations required in recognizing characters or other unique patterns.

Early work was done during spare time with David H. Shepard (now president of IMR) doing the electronics and logic and Harvey L. Cook, Jr., (now vice president) doing the mechanics. The third machine to come out of their attic workshop was the first machine ever to read the entire alphabet as typed by a conventional typewriter. At that time, Intelligent Machines Research Corp. was formed and a short time later operations were transferred to a small store. As development continued and the staff of engineers and technicians increased, work was moved first to the basement of a large research building. In January of this year IMR'S own 15,000 square-foot plant at Research Park in Alexandria, Va., was opened.

Patient development has proved the

*Trademark.

Progress report presented at Research & Engineering Council meeting in Philadelphia, May 15-17, 1957.

correctness of the original concept and has yielded machine logic capable of recognizing characters under real conditions, with performance which meets commercial requirements at costs that are economical in terms of the results obtained. Problems of considerable complexity have been solved and problems of increasing difficulty are under attack. The progress of the work has been solidly based on ever increasing experience in developing machines which earn their living by reading in the real world.

Scandex Reader

In early 1954, IMR and Farrington Manufacturing Co., which sponsored the development, announced and demonstrated the first Scandex* reader. This machine reads account numbers transferred from the customer's Charge-Card* credit token to a punch card invoice form by Farrington imprinters located at service station pump islands. The account number read by the machine is punched into the card invoice so that it can be processed automatically by conventional punch card accounting machines. In early 1955, two field test Scandex machines were placed in operation. Commercial production models are now in operation processing cards at the rate of 180 per minute.

Paralleling the Scandex development, which required reading of

numeric data only, was an Analyzing Reader delivered to the Reader's Digest Association. This machine reads typed names and addresses, identifying alphabetic information from name and city lines and identifying numeric information from the house address. A numeric machine reading from cashier stubs and punching into separate tabulating cards at 100 per minute was delivered to Ohio Bell Telephone Co. in mid-1956.

Current machine projects now under development indicate the progress being made. A mail sorter is being developed to sort mail by reading the last line of the address. Cities and states are recognized by important features unique to the city and state names. This machine has partially achieved its objective by sorting 18 different cities and/or states, when reading fairly clean mail. Capabilities are now being expanded to retain its performance on real mail of progressively poorer quality.

Analyzing Reader

Of approximately the same degree of sophistication is an Analyzing Reader being developed for a government activity. This machine will read alphabetic capitals, numbers and punctuation marks as made by teleprinter. Unlike the other Analyzing Readers, this machine reads from page documents and includes several automatic editing features in addition to its considerable character



FOR THE FINEST IN MAGNIFIERS... SEE PITMAN FIRST!

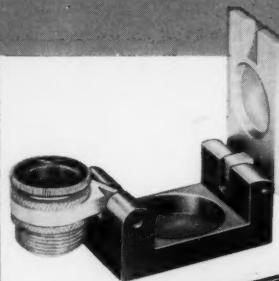
All Pitman Magnifiers have a compound lens system, giving full rated magnification with a flat field. These magnifiers are manufactured and guaranteed by the Harold M. Pitman Company.



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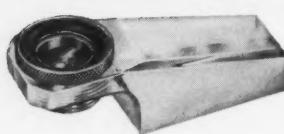
Perfection 20X Folding
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Camera Type 10X Folding
For focusing through ground glass. Auxiliary Base permits use on flat surface without changing position of lens.



Century 10X
Lens swings back over base for carrying.



Challenger 10X
Compact, light weight plastic base.



Etchers Delite 10X
Large plastic base provides easy grip for wet fingers. Corrugated bottom will not stick to wet surfaces.

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recognition ability. This machine, however, does not have to cope with serious defects or imperfections in the characters which it reads since the generation of this data is under control of the activity requiring the reading.

These last two machines indicate some considerations which must be understood by those interested in automatic reading at its present stage of development. If the variety of different characters or words is reasonably small, as in the mail sorter recognizing 18 city or state names, then the quality of material to be read need not be uniform and a considerable range of quality may be accepted. However, the page reader must identify a large number of characters and symbols and in this case uniformity of input material and reasonably well controlled quality are helpful in achieving high performance.

Analyzing readers occupy a unique place in the digital data processing field in that they are competing directly with the flexibility and intelligence of human operators in jobs where the data may require use of human reasoning. The readers do not possess human reasoning, but can compete because they are fast and because they are not subject to fatigue and boredom.

Most keypunch operations are verified by checking and proofing. When keypunching is replaced with automatic character sensing, checking and proofing are still advisable. Attention to how the material is created and handled often simplifies the proofing schemes. Each application requires thoughtful consideration of each part of the document machine system and subsequent use of the data. Such consideration has yielded high performance systems for some of the most troublesome problems of business.

Application to Graphic Arts

IMR experience in the application of high-resolution optical scanning and digital analysis techniques to the reading of business data has led to the conviction that an Analyzing

Reader can be built to read typed page copy for automatic typesetting purposes. The proposed machine, while developmental in concept, could well demonstrate the feasibility of cutting Teletypesetter or Monotype tape directly from copy prepared under reasonably well-controlled conditions.

For this developmental machine it is proposed that copy be typed on uniform electric typewriters using carbon ribbons, pin-feed registrator platens and other minor modifications. Type face would be two sizes of capitals; the larger signifying upper case; the smaller, lower case. Typed underline or hand underlining done with reasonable care would signify upper rail characters. Editing features would permit corrections and insertions by typing above the normal line of triple-spaced copy and by use of slant sign to signal insertion. Deletion could be done by interlining, though increased care might be required.

Line Justification

The machine could perform the automatic operations required for justification to selected line widths. Further investigation may permit the machine to carry out hyphenation in some simple cases. Paragraph indentation and other format rules would be performed automatically.

Preliminary investigations indicate that such an Analyzing Reader could perforate six level Teletypesetter tape at 60 characters per second. New tape perforators just now becoming available might permit punching to proceed at two or three times this rate.

The requirements of the typewriters for use in this system were suggested to make input data of maximum quality. Subsequent experience in a developmental system might show that requirements could be relaxed without affecting performance. In any event, a machine which will eliminate the duplicate keystrokes required for tape cutting or typesetting under conditions now obtainable is fascinating to contemplate.★

Copperizing Deep-Etch Images on Aluminum

MANY PLATEMAKERS wonder how to determine when an aluminum deep-etched image is properly copperized. That is, by the length of time that the solution is on the plate or by the color of the image.

The Lithographic Technical Foundation has found that the most important consideration is that the metal in the image areas be prepared for and receptive to the copper plating reactions. Different deep-etching solutions appear to leave different deposits in the image. These vary in their effect on the copper deposited in the image. If the plate is underdeveloped, a gum film remains in the image which interferes with the chemical reaction. Some commercial plate washes leave oily films or other residues in the image. If not removed by a good, oil-free alcohol used for the final wash, the oil prevents good plating with the copperizing solution.

Properly done under good conditions, the copper plate builds up slowly. It should take about one minute before the first signs of a copper deposit appear. After one to two minutes, the image should have a faded rose color. *This is what you want*, says LTF. Further plating continues to build up the copper until it takes on a bright, new penny color. Such a film is too thick for best results.

Copper-plating solutions are very sensitive to the amount of water in them. Sometimes, during periods of high relative humidity, the alcohol in the solution will pick up the moisture from the air. The solution then becomes too active. When it reacts with the plate metal, the copper comes out of solution

(Continued on Page 111)



Willing Hands-

are fine, (if you can get 'em) *but* and, it's a big "but," the more you use them higher goes your production costs.

Are you using hand operations in order to avoid the purchase of a machine? A machine that you *know* you need?

Why not ask Wagner Engineers to check over your production lines to see if they can get rid of slow-moving manual operations?

They'll tell you where machines can do the work, where you can increase volume, and improve quality—saving money! If you are not sure that you are getting the most from your equipment and personnel, ask Wagner to look it over. There's no obligation.

***When thinking of Progress-
think of Wagner!***

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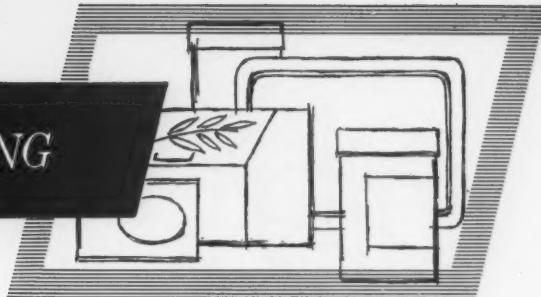
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Division

METAL DECORATING



J. L. Clark's Stamp Tray Wins Award



METAL decorators are a modest lot. They have a way of keeping quiet about their work, which includes some of the most interesting jobs produced by the offset process. One such job recently was turned out by J. L. Clark Mfg. Co., Rockford, Ill., one of the leading decorators. The job was a five-color lithographed metal gift tray using foreign postage stamps for its motif. It was recognized in the most recent Lithographers National Association competition as an outstanding example of metal lithography, and its production makes an interesting case history.

ML asked Clark to tell something about the tray — how it was conceived, designed and produced. The metal decorating firm replied that its customer, Lith-O-Ware Products, Inc., of Chicago, wanted the tray for the Gourmet Guild of Miami, who in turn are using it as a package to market specialty cheeses.

In producing the job, Clark first obtained from Lith-O-Ware a package of canceled foreign stamps with instructions to prepare an attractive tray and coaster set. Clark's art department reviewed the stamps and selected those most suitable from a design standpoint.

The stamps finally chosen were arranged in a pattern that incor-



Press Sheets Courtesy of Encyclopedia Americana

"Our first job on Cronar® — and it's a beaut!"

"Like every other litho shop, we had heard a lot about Du Pont's new 'Cronar'-based film. They call it Photolith Ortho A. Our first shipment came in last week, and we decided to give it the full treatment—a complicated four-color catalog job.

"I'm just about finished now, and there's no doubt about it, 'Cronar' does everything the Du Pont people say it will. Shrink and stretch are absolutely minimum, and its toughness is beyond belief. 'Cronar' is a snap to handle—dries faster than any other film we've used. And storing these sheets of 'Cronar' is a lot easier

than fooling around with bulky sheets of glass. What does the job look like? It's a beaut . . . and it saved us about half the time that a job like this ordinarily takes.

"I guess if you've used 'Cronar', you already know this. If you haven't tried 'Cronar', you can get it from your dealer now. My advice is to call him and order today."

• • •

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Photography with a purpose . . . not an end in itself but a means to an end.

porated pleasing composition and color variety. When completed and mounted in position, this arrangement was used as direct copy for the subsequent process camera work.

For reproduction, 133-line screen four-color process was used for the stamps. In addition, a special gray fifth color was added to accentuate the colorful design. After completion

of the color separations, adaptations were made same size for the matching coaster stamp designs to complete the set.

The completed five-color designs were lithographed on a 29 x 36" Hoe press, followed by a varnish coat for protection during fabrication and eventual use. The stamps, representing more than a dozen countries,

were reproduced with a high degree of fidelity on the sample sent to ML. Many bear cancellation marks which add depth and realism. All decorating work was done under the supervision of George C. Morris, art director at Clark. Production was under the supervision of Harold W. Lee, head of the company's lithographing division.★

NMDA Sets Program

"Rubber Blanket Application of Coatings" and "Mullen Air Ductor Dampening System" are two of the many topics which will be discussed at the 23rd annual convention of the National Metal Decorators Association, to be held Oct. 21-23 at Chicago's Edgewater Beach Hotel.

Some of the other features tentatively scheduled include showings of the films "Ink Goes to College" and "Miracle of the Can"; a panel discussion on the merits of Aller, bimetal, tri-metal and presensitized plates, as well as plate chemicals; and a tour of the research laboratories of Continental Can Co.

The Metal Box Co. of London, Eng. will have on display an assortment of its metal decorating and will discuss metal decorating as performed in England.

•

NAPL Sets Program

PRELIMINARY plans for the 25th annual convention of the National Association of Photo-Lithographers indicate that the program will follow closely the practical work-shop approach that was so successful in New York last year.

The "Silver Anniversary" convention of the lithograph trade association, which has grown from a comparative handful of members to more than 1,000, is scheduled for the big Chase-Park Plaza hotel (actually two adjoining hotels) in St. Louis Sept. 11-14.

One of the high points of the convention is expected to be distribution of the *Lithographer's Manual*, a completely revised and expanded version of the publication first issued nearly 20 years ago. The first edition has long been out of print and has be-

come somewhat of a collector's item. Every guest at the convention will get a free copy of the new edition, which will sell for \$15.

Concurrent panel discussions on four litho topics were widely applauded last year as being a very worthwhile feature of the 24th convention. The plan is to continue that idea this year with panels on small duplicating presses, art and copy preparation and large presses.

Several other general panel discussions are listed on the advance program, including "Building Better Business," "Three Color Is Building Litho Volume," "Accounting, Costing and Estimating" and "Presensitized Plates." At the latter session, each participant will process a presensitized panel before the audience.

The Saturday session, of course, will be devoted to an all-day technical panel handling questions from the floor. Once again William J. Stevens, Miehle Printing Press & Mfg. Co., will be moderator.

Other talks on the program include the following:

"Work Simplification," Stanley R. Rinehart, DuPont;

"Meeting the Paper Needs of the Lithographer," Ronald I. Drake, Champion Paper;

"Labor Relations in the Lithographic Industry," Quentin O. Young, Lithographers National Association;

"Latest Developments in Lithographic Methods and Techniques," a movie in color and sound by the Lithographic Technical Foundation;

"Everyday Values for You," John F. Perrin, president of LTF;

"Web Fed Press Production Possibilities," Douglas G. Murray, American Type Founders Co.

One of the biggest attendances in the history of the NAPL is expected for the 25th anniversary convention. Reservations already received assure the biggest exhibit of suppliers equipment and materials ever to be held in conjunction with the annual meeting.

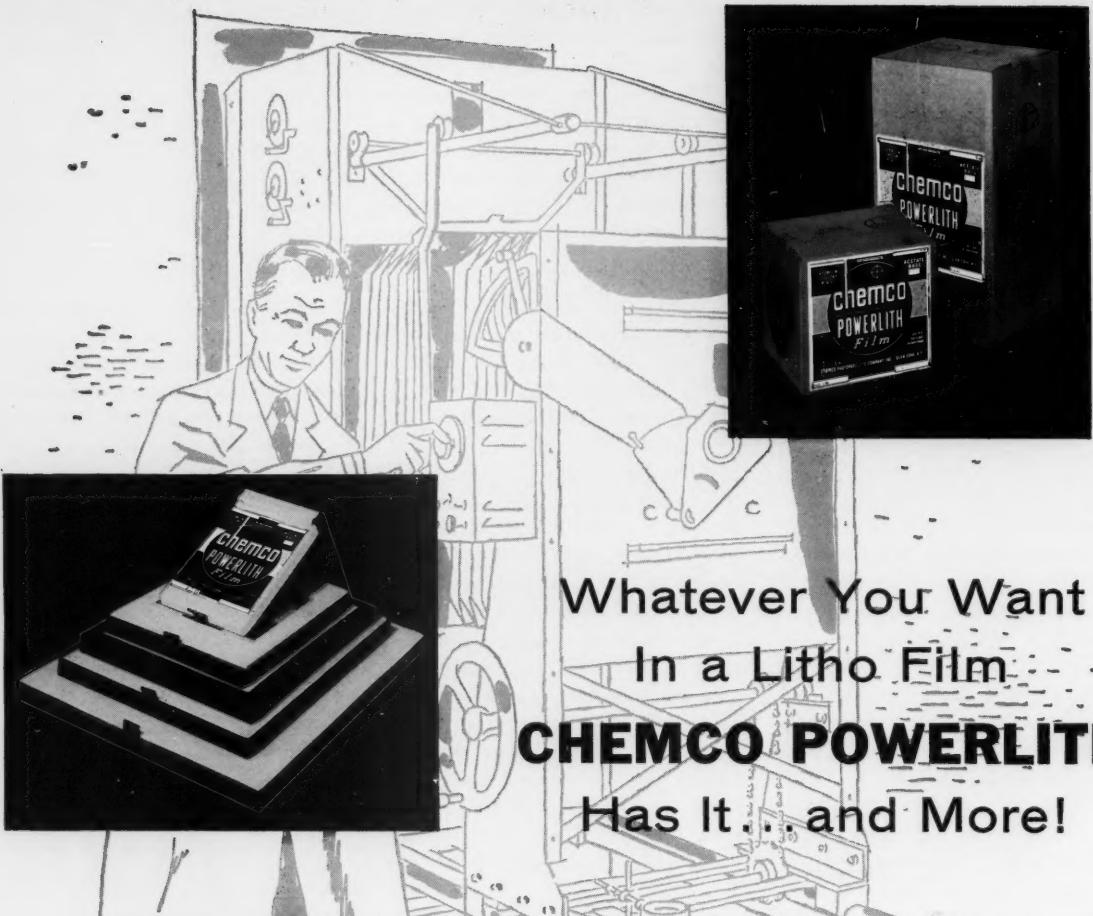
Climax of the convention will be the annual dinner dance and entertainment on Friday evening.

Full details on the program and panelists will be published in the August and September issues of Modern Lithography.



You know those rare days when everything's right? Air smells good. Food tastes terrific. Even the old face looks good in the mirror. Today can be that kind of day. Just do two things. Call your doctor for a thorough medical checkup for cancer. Then write out a check—a nice fat one—to the American Cancer Society, and mail it to "Cancer" in care of your local Post Office.

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Has It... and More!

EASY DEVELOPMENT . . . Requires no change in development procedure. *Demand proof!

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*DEMAND PROOF! A comparison of on-the-job performance will convince you that Powerlith is for you. Ask your Chemco representative for samples and a demonstration in your shop.



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TECHNICAL BRIEFS

These abstracts of important current articles, patents, and books are compiled as a service of the Lithographic Technical Foundation, Inc. They represent statements made by the authors and do not express the opinions of the abstractors or of the LTF.

Since some of the abstracts are from abstract journals, LTF cannot furnish photostats of all of the original articles. If the title is marked with an asterisk (*), LTF has no further information than that contained in the abstract itself. Inquiries about these items should be sent direct to the source that is named. If you want copies of U. S. Patents, write direct to the Commissioner of Patents, Washington 25, D. C. Send twenty-five cents for each patent desired. Make checks or money orders payable to "Treasurer of the United States." British patents may be obtained for forty-five cents from the Patent Office, 25 Southampton Buildings, London, W. C. 2, England, or as is the case with all foreign patents, they may be obtained as photocopies from the U. S. Patent Office, Washington 25, D. C.

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please give the **COMPLETE** description of article wanted—TITLE, AUTHOR, PUBLICATION, and PAGE NUMBERS. When articles appear in LTF's publication *Research Progress* as well as other publications, *Research Progress* will be sent. The charge for copies of *Research Progress* is thirty cents each to LTF members and one dollar to non-members plus three cents postage. The charge for photostats is \$1.00 per page (check abstract for number of pages) plus three cents per page postage. Postage charge for orders from places other than Canada and the United States or its territories and possessions is ten cents per page of photostats or ten cents per copy of *Research Progress*. Orders from companies or individuals who are not members of LTF cannot be filled until payment is received. Orders with payment enclosed receive immediate attention.

LTF also has mimeographed lists of (1) "Periodicals Abstracted by the Research Department" and (2) "Books of Interest to Lithographers." These are available for twenty-five cents each in coin or U.S. stamps. All inquiries concerning these lists and photostats of original articles (not marked with an asterisk) should be addressed to: Lithographic Technical Foundation, Inc., Research Department, 1800 So. Prairie Ave., Chicago 16, Ill.

author continues his discussion of print quality factors; ideal reproduction; the relationship between the halftone transparency and press sheets, practical use of tone reproduction curves, and the four-quadrant diagrams for plotting tone reproduction data.

SCREEN PATTERNS IN FOUR-COLOR HALFTONES. R. S. Cox. *Process* 64, No. 758, February, 1957, pp. 61-67 (7 pages). The author discusses two types of screen patterns which are liable to appear in four-color halftone process work. One is composed of patches of slightly differing colors, arranged at regular intervals, and the other pattern is in the form of a small repeat dot texture which is often troublesome in wet printing. The causes of these patterns are discussed and illustrated in color.

SAFE HANDLING OF PHOTOGRAPHIC PROCESSING CHEMICALS. D. W. Fassett. *Photographic Science and Technique Series II*, Vol. 3, No. 4, November, 1956, pp. 159-161 (3 pages). The safe handling of industrial chemicals in the processing laboratory requires proper control of volatile materials, of caustic or corrosive liquids, and of harmful dusts in the bulk handling of solids. The

problems and means of control of skin allergy or skin sensitization to chemicals apt to be encountered in the processing laboratory are discussed in detail.

Planographic Printing Processes

***SOME EXPERIMENTS TO ASCERTAIN THE APPLICABILITY OF THE ANTHRONE METHOD FOR MEASURING THE QUANTITIES OF GUM ARABIC, CARBOXYMETHYLCELLULOSE AND CARBOXYMETHYLSTARCH ADSORBED ON LITHOGRAPHIC ZINC PLATES, AND MEASURING THE HYDROPHILIC QUALITIES OF THESE SUBSTANCES.** E. Olsen and C. W. Christensen. *Int. Bull. Print. Tr.*, No. 73, Jan. 1956, pp. 39-43; *Printing Abstracts* 11, No. 4, April, 1956, p. 238.

LITHO PLATE GRAIN TESTER. Anon. *Inland Printer* 136, No. 4, Jan. 1956, p. 66; *Printing Abstracts* 11, No. 4, April, 1956, p. 226. The Lithotest measures the uniformity and depth of the grained surface of lithographic plates. A gauge head, through which air flows, is placed on the plate. The rate at which air leaks across the grained surface of the plate is amplified and indicated by the position of a float in the instrument (Sheffield Corp., Dayton 1, Ohio).

DEVELOPMENTS IN LITHOGRAPHIC PROCESS COLOR PRINTING. George W. Wilhelm. *Graphic Arts Monthly* 28, No. 9, September 1956, pp. 100, 102, 104, 106, 110 (5 pages). Masking color correction, electronic scanning, and presensitized press plates are given as example of 20-25 year time spans between new basic ideas and their improvement and acceptance in wide spread use. Many products are ahead of their time in customer needs and we may foresee future progress as they cast their shadow before them. Wilhelm predicts that all future printing plates will have color sensitive coatings and be made direct from copy. Inks will dry immediately and plastic will replace metal for plates.

Paper and Ink

PROBLEMS OF LITHOGRAPHIC GOLD INK. William Byers. *The Graphic Arts Monthly* 29, No. 1, January, 1957, pp. 74, 76, 146, 148 (4 pages). A printer describes experiments made to produce good gold printing by lithography. Various bronze powders and varnishes were tried as well as the addition of base color. It was found that gold powder added to imitation gold gave more sheen than imitation by itself. A mixture of bronze powder plus varnish gave the best results. Troubles encountered were (1) Gold on uncoated paper not too good, (2) Tarnishing occurs—ink must be mixed as used, (3) Fountain agitators needed to keep bronze from settling, (4) Dampeners destroy metallic sheen.

***HYGROMETER FOR PAPER ETC.**, Web. British Patent 741, 164, appl. 18 May 1953, Germany, 19 May 1952, publ. 30 Nov. 1955, P. Lippke. *Pat. Abstr. J.* No. 3477, 30 Nov. 1955, p. 2C; *Printing Abstracts* 11, No. 2, February 1956, p. 83. A feeler forms the electrode of a condenser which determines the dielectric constant of a moving web, the parts associated with the feeler being

Photography, Tone and Color Correction

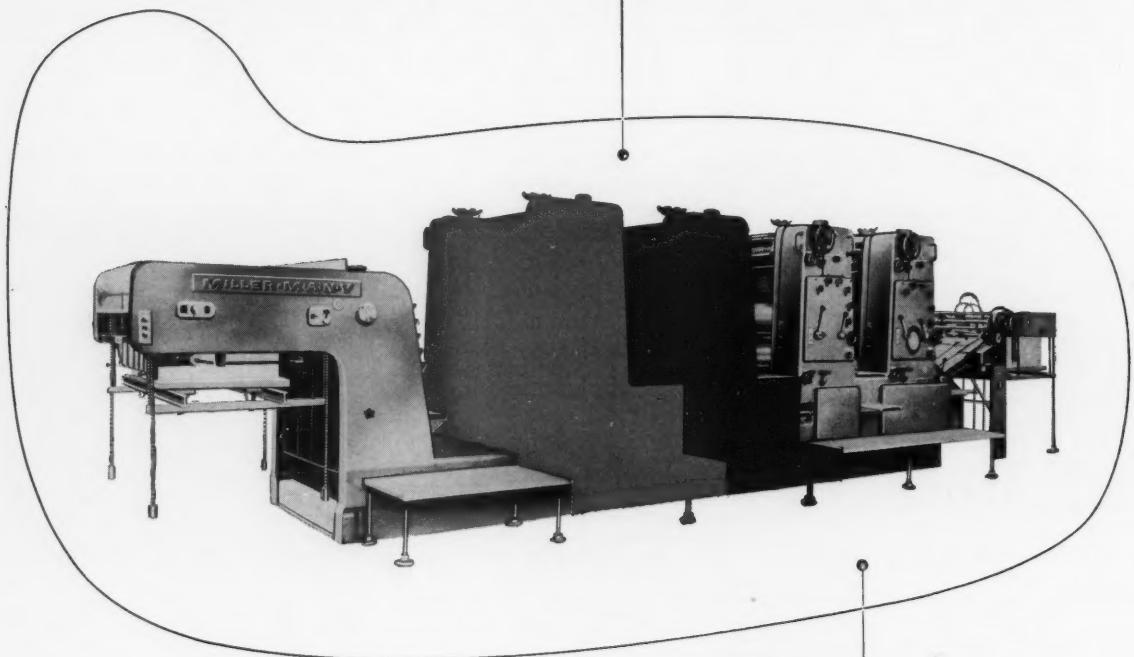
MEASURING DEFINITION IN LITHOGRAPHY. Warren L. Rhodes. *Modern Lithography* 25, No. 2, February, 1957, pp. 67, 68, 113 (3 pages). The author discusses the measurement of the elongation of the printed dots (slur) and the increase in size in all directions of the printed dot (fill-in or spread) using both line and halftone test patterns. The printed test pattern can be evaluated either visually or by use of a densitometer. The author relates these measurements to the definition of this image.

PRINT QUALITY IN OFFSET LITHOGRAPHY—Part I. Bruce E. Tory. *Process* 63, No. 756, December, 1956, pp. 472-477 (6 pages). This article is the first installment of two on print quality in lithography. The author discusses the relationship of tone reproduction, smoothness, and resolution to print quality. The influence of variables such as dot sharpness, plate grain, paper and ink, placement of halftones, mottle, ink spread, slur and doubles are described.

PRINT QUALITY IN OFFSET LITHOGRAPHY—II. Bruce E. Tory. *Process* 64, No. 757, January, 1957, pp. 10-13 (4 pages). The

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MILLER-M·A·N OFFSET PRESSES

Plan for tomorrow's offset press . . . TODAY. As your business grows, expand with the precision engineered Miller-M·A·N Offset Press. Its unit construction will permit you to plan now for the future, since it permits you to convert a two-color press to a three or four color . . . right in your plant and in a matter of a few weeks. Each added printing unit of a Miller-M·A·N is identical . . . no compensation for different ink feed methods is necessary; does not affect press speed nor change in floor loading factor. Let us tell you more about this and other outstanding Miller-M·A·N features.

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mounted on a slide which is movable transversely over the web, and the feeler being able to accommodate itself to variations in position of the web.

Lithography—General

*THE ANALYSIS AND CONTROL OF NOISE IN LITHO PLATE GRAINING. J. H. Everest. *British Printer*, v. 69, Nov. 1956, pp. 30-37; *Battelle Technical Review* 6, No. 2, February, 1957, p. 112a.

WHAT IS THE BEST FOUNTAIN ETCH? Oscar Diehl. *The National Lithographer* 63, No. 8, August 1956, p. 8, 1 page. A standard fountain solution should not be used to run all jobs. The pH and composition of the fountain etch should be varied dependent on inks used, the forms being printed, the color of ink, the type of plate, the type of paper and the condition of the pressroom.

NEWSPAPERS RUN IN COLOR ON WEB OFFSET PRESS AT RIT. *The Inland Printer* 138, No. 3, December, 1956, pp. 61-62 (2 pages). A description of a co-operative experiment printing a three-color web-fed job on newsprint. Co-ordinating the work were Rochester Institute of Technology, Graphic Arts Research Department; ATF Webendorfer; St. Petersburg (Fla.) Times; with an assist from suppliers for the job.

NEW LITHOGRAPHIC TECHNICAL FOUNDATION BOOK TELLS BEST WAYS OF HANDLING SOLUTIONS. *Modern Lithography* 25, No. 2, February, 1957, pp. 49, 51, 54, 57, 117, 119 (6 pages). A reprint of the chapter in the LTF "Formulary," Bulletin 602, which describes the various litho chemicals, the hazards or lack of hazards, and safe methods of handling them.

INVESTIGATE THE SMALL OFFSET. James S. Wilkinson. *Canadian Printer & Publisher* 65, No. 11, November, 1956, pp. 48, 50, 52, 54, 56 (5 pages). The general introduction discusses the improvements which have been made in the small offset field during the past decade. Improved equipment, increased delivery speeds and adaptions on presses to increase the ease of use have greatly expanded the small press industry. Small presses discussed are: Multilith (various models); Davidson (various models); A. B. Dick; Whitin Masterlith; ATF Green Hornet; Miehle Lithoprint; Rotaprint (various models) and Harris 14" x 20". Auxiliary equipment is also discussed.

HOW DOES MEASURING MAINTAIN QUALITY? *Canadian Printer and Publisher* 65, No. 11, November, 1956, pp. 45-46 (2 pages). "We must learn to use instruments to achieve the control and standardization necessary to produce good quality consistently. Instruments do not replace craftsmen. They help craftsmen do a better job and make it possible for people with less experience to do an acceptable job." Eyes are unreliable, so are hands. That's why measuring tools are becoming more essential to guarantee consistent product quality. There are illustrations and some discussion of the paper hygrometer, blanket thickness gauge and pick tester.

Graphic Arts—General

TONE REPRODUCTION IN THE GRAPHIC ARTS PROCESSES. Warren L. Rhodes. *Pacific Printer*, Publisher and Lithographer No. 6, Dec. 1956, pp. 9, 10, 12, 14, 28 (5 pages). This article is the first in a series on color problems in the graphic arts. It covers the general aspects of the theory of tone reproduction and its application in graphic arts. The tone reproduction characteristics of letterpress, gravure, and offset are also discussed. ★

ATF Sells Elizabeth Plant

American Type Founders Corp. announced late last month that its extensive plant in Elizabeth, N. J. has been sold to Purepac Corp., a drug and pharmaceutical manufacturer. The transaction reportedly involved \$1,400,000.

ATF, who recently moved its printing press and supply manufacturing to Massachusetts where Whiten Manufacturing Co. will manufacture ATF products under contract, will lease 80,000 sq. ft. from Purepac for a period of 10 years, with privilege of renewing for an additional 10-year period. ATF will use the space in Elizabeth for the manufacture of type and type fonts.

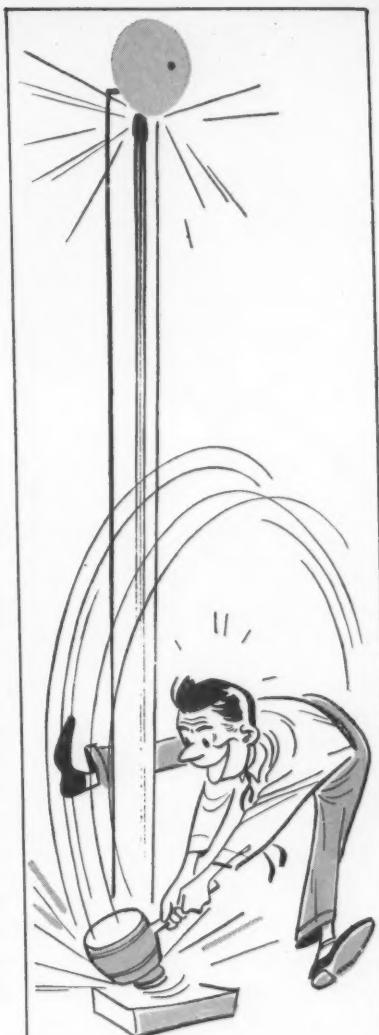
Purepac will occupy approximately 150,000 sq. ft. of the New Jersey plant. The New York Pharmaceutical firm expects to move into the plant sometime this month.

Purchase Printing Co.

Glenn Parker, formerly executive vice president of the Kalmbach Publishing Co., Milwaukee, has acquired control of the Meyer-Rotier Printing Corp., Milwaukee, and has assumed active management of the firm.

The Meyer-Rotier Co., which produces both offset and letterpress printing, has operated in Milwaukee for the past 30 years.

Mr. Parker has been active in the printing industry for the past 20 years, 10 of which were spent with the Kalmbach organization. He is a director of the Wisconsin Graphic Arts Association and the Printing Industry of America. Mr. Parker will serve as president of Meyer-Rotier.



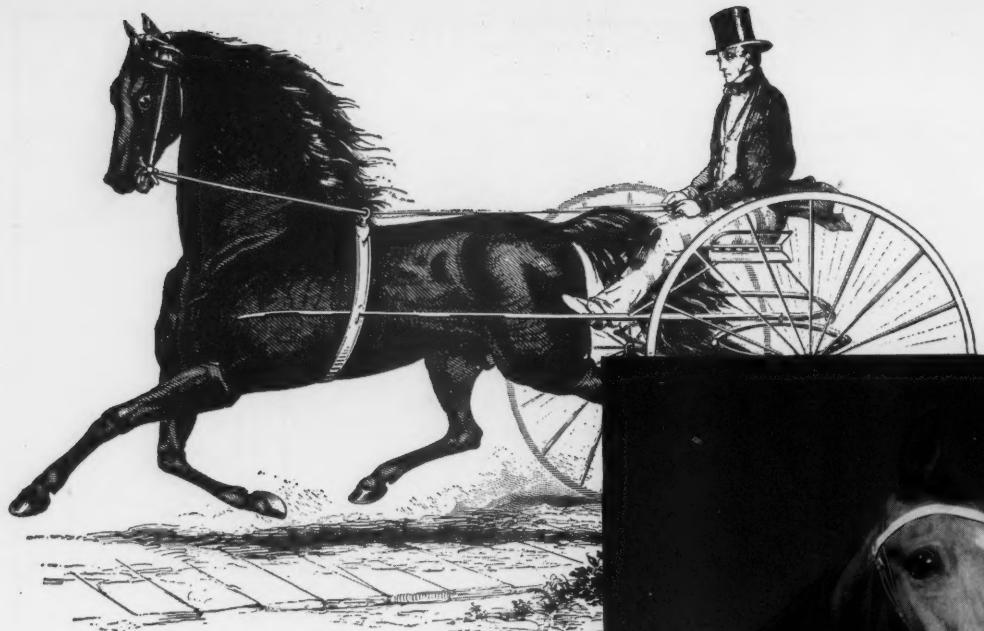
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SELF-ADVERTISING
CAMPAIGN
may Ring
the Bell!



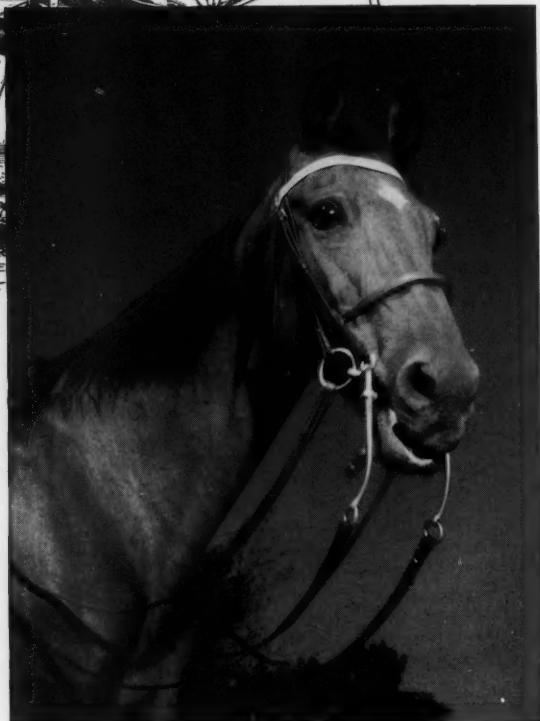
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ANSCO Reprolith Ortho Type B Film

Built for speed—in both camera and contact exposures—*Ansco Reprolith Ortho Type B* will save you time! This unusually high-speed, high-contrast orthochromatic film is especially well-suited for the production of negative and positive halftones or line work from either colored or monochrome copy. Its full orthochromatic sensitivity permits the use of filters to improve copy rendition and reduce the need for handwork on negatives. Improve your shop efficiency . . . use *Ansco Reprolith*

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For maximum density and contrast, use *Ansco Reprodol Developer*, the fast-working, convenient dry powder mix making 2, 10 and 25 gallons of solution. If a hardening formula is desired, use *Ansco Acid Fixer*, a single-mix, easily dissolved powder in quart to 5-gallon containers.

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LITHO CLUB NEWS

Cincinnati

Annual Boatride Run

A record attendance of 176 members, wives and guests enjoyed an annual moonlight boatride on the Ohio River on June 8. Cards, dancing and an elaborate dinner featured the affair, arrangements for which were made by Frank Riehle, the Hennegan Co.; Russell Smith, Tri-State Offset Co., and Howard Woods, Nielsen Lithographing Co.

The club's annual family picnic will be held August 10 at Laughman's Grove. John Rogers, Stevenson Color Separation Co., heads the arrangements committee.

Regular business was discussed and plans for future meetings were formulated at a closed meeting of the Cincinnati Litho Club, Inc., on June 11 at Marshall's Restaurant in nearby Kentucky. Two new members greeted at the meeting are Gordon Wickfelt of Nielsen Lithographing Co., and Harmon Taylor, Tri-State Lithographers, Inc.,

New York

Dampeners Discussed

"Covering the Waterfront" was the theme scheduled for New York Litho Club's June meeting at Hotel Shelburne. The program, divided into three parts, had the following speakers and topics:

Norman Rowe and Gus Reichel of Ideal Roller Co., (Plast-O-Damp); Norman Mack of Van Son Holland Ink Corp. of America, Mineola, N. Y., (Dis-Base and Dis-Cover); and J. P. Mather, Sun Supply Co., (Mullen Air Ductor Dampening System). This was Mr. Mather's first appearance before a litho club.

September 7 is the date set for the

club's annual outing. Breakfast, a shore dinner, plus corn on the cob, soft clams and clams on the halfshell are listed on the menu. Site of the affair is Plattdeutsche Picnic Grounds, Franklin Square, L. I.

Baltimore

Sports Night Conducted

The annual "Sports Night" of Baltimore Litho Club, held recently at Mundes Lauraville House, featured a film on fishing in Newfoundland. A cocktail party for guests and members preceded the meeting.

August 3 is the date set for the club's annual crab feast, which will be held at John Hasslingers, 201 N. Luzerne Ave.

Tulsa

Conduct Round Tables

Round table discussions on five topics were featured at the June 13 meeting of Tulsa Litho Club. Subjects covered included parchment water rollers and ink rollers; camera; stripping and masking; plate-making; and presswork.

Through the efforts of Robert Herrick, club member, the Litho Technical Library is being indexed and placed in the Tulsa Public Library for members use.

Dayton

Holland Is Guest Speaker

O. M. Holland, Interchemical Corp.'s IPI Division, spoke on "The Magic of Color" at the May meeting of Dayton Litho Club. Mr. Holland used slides and charts to illustrate his talk.

New members announced by the club include Theodore Torlino of In-

terchemical Corp.; Jerry Bashaw, Standard Register Co.; Nick Santa Cross, Frederick Levey Co.; Kenneth Sexton, National Cash Register Co.; and Byron Wyland, Harris-Seybold Co.

Twin City

Dry Offset Discussed

Dr. Paul J. Hartsuch, lithographic consultant with Interchemical Corp.'s IPI division, spoke on "What's Wrong With Dry Offset?" at the June meeting of the Twin City Litho Club. Approximately a year and a half ago, Dr. Hartsuch made a survey on the status of dry offset printing.

By making an extensive tour of the U.S. and visiting many plants which had attempted to use the process, Dr. Hartsuch discovered that the process is good only for long runs of line and form work with no halftones. He showed club members that dry offset tends to be grayed out in print. From his tour, he realized that research work has, for the most part, been discontinued by numerous organizations, including ATF. Dr. Hartsuch said no one is using the process for color work because plates, pressures, ink and blankets must be all to a highly exacting tolerance.

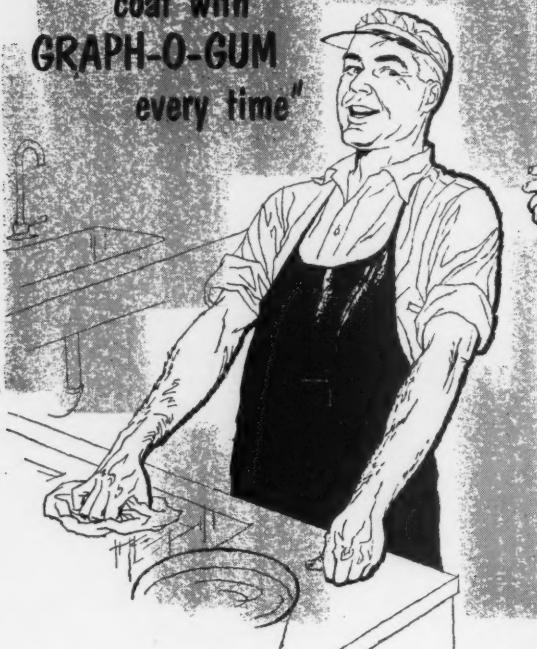
Herman Goebel, Brown & Bigelow, first vice president of the National Association of Litho Clubs, presented his report of the recent NALC convention to the members. The national convention will be held in Minneapolis in 1959.

New members initiated into the club are Neil O'Neil, Jack Carroll, Ray Lawrence and Frank Mantz.

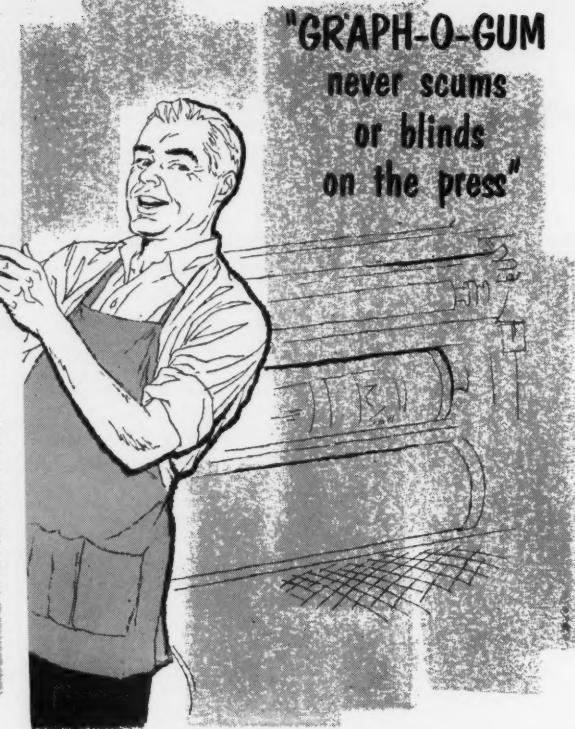
NALC Bulletin Out

Tips, the periodic bulletin of the National Association of Litho Clubs, newly revised and enlarged, reports highlights of the recent NALC convention in its June issue. Included in the bulletin are 1958 convention plans, a list of present NALC officers and helpful hints on how to line up a better program for litho clubs. Under the direction of Fred Fowler, the bulletin is sent to all members of the national association.

"I get a thin even
coat with
GRAPH-O-GUM
every time"



"**GRAPH-O-GUM**
never scums
or blinds
on the press"



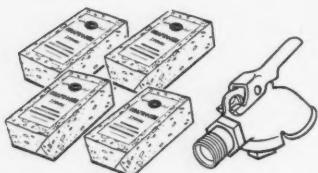
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NEW HUNT GRAPH-O-GUM IMPROVED 3 WAYS

GRAPH-O-GUM has constant viscosity. Viscosity is important because you cannot get a perfect gum film on each plate unless you are working with a gum of unchanging viscosity. GRAPH-O-GUM is guaranteed to be of constant viscosity in every ounce from the top of the drum right down to the bottom.

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FREE With every 30 gallon drum of GRAPH-O-GUM, you will receive four 6" x 3" x 2" litho grade cellulose sponges and an aluminum drum spigot. With every carton of four one-gallon bottles, one cellulose sponge is included. Order from your nearest Hunt Branch today.

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MONEY-BACK GUARANTEE

Order a carton (4—1 gallon bottles) or a 30 gallon drum of Hunt GRAPH-O-GUM today from your nearest Hunt Branch. Both are packed in no-deposit, non-returnable containers. If GRAPH-O-GUM does not do all we say it does, write to the same Hunt Branch for return instructions, and we will refund the purchase price, plus shipping charges.

PHILIP A. HUNT COMPANY
PALISADES PARK, N. J.

Chicago • Cleveland • Cambridge • Brooklyn • Atlanta • Dallas • Los Angeles • San Francisco

New Type of Safety Push-Button Control Developed*

MY PURPOSE here tonight is to demonstrate and acquaint you with a new type of safety pushbutton control which I have invented that I call the Pat-Stop. I developed this device as the answer to my problem of controlling the Chief 22 offset press which I operated. This press has a two-button control on it, consisting of a Start button and a Stop button with a collar around it that may be set to either Jog or On. If this collar is set to Jog, and the Start button is pressed, the machine will run only as long as the Start button is held depressed, thus providing the inching movements so necessary for adjusting, cleaning, mounting plates, etc. When this collar is set to On, and the Start button is pressed, the machine will go to a continuous run, which may be stopped only by pressing the Stop button.

My problem was that I couldn't always remember to set the collar to Jog. I was lucky that I was never caught, I merely frightened myself thoroughly a few times. This fear motivated me to do something about it. By carefully analyzing each move made during the various operations requiring inching, the simple solution came to me. I observed that each time inching was required, my hand rested on top of the pushbutton station until finished. Then, when a continuous run was desired, I'd turn the collar to On, press the Start button and move away. Another clue was the worn spot in the paint on the top of the control station where my hand rested so much while jogging.

My first thought of a solution was to make a device that would turn the collar to Jog by resting my hand on the top of the control station. It then became obvious that I could do better by installing another Stop switch at the top of the station that would be operated by an overlying plate that would cover the entire top, and form a comfortable handrest. This device worked perfectly.

* From a talk by Louis M. Bellio, printing supervisor of the Massachusetts Indemnity & Life Insurance Co., Boston, delivered at the May meeting of the Boston Litho Club.

I soon found myself using the large plate to stop the machine because it was easier and more natural to use a light downward "pat" on the large plate than to fumble for the Stop button. The name "Pat-Stop" was coined because of this feature. I saw the commercial possibilities and filed for a patent which was finally granted last October. (No. 2,771,532).

In addition to the errors I had made in not setting the collar, there were these additional types described. On control stations that have separate buttons for Inch, Run, Reverse, and Stop, the Run or Reverse button is often pressed by mistake, causing the machine to move in an unexpected manner, damaging equipment or injuring the operator, sometimes fatally. Another type of accident happens to operators who are called upon to operate various machines that have serious and consequential differences in the positions and functions of their control buttons. This condition is very common, and the operators must guard against falling into habits that would be correct for a particular type of control but a dangerous error in another. Another type of accident happens when a machine is already running and something goes wrong that requires an immediate stop. The operator, or one of his assistants trying to be helpful, fumbles for the Stop button, possibly even strikes another in panic, and when the machine is finally stopped, the results are often disastrous. Still another type of accident is caused by operators who start machines while their fellow-workers are in a dangerous area out of view.

I have developed a wiring diagram that gives the Pat-Stop system another exclusive advantage over all other systems. This system installed on any multi-station machine would allow any operator at any station to work in complete safety, either by resting his hand on the Pat-Stop and doing one-handed work, or by latching down the Pat-Stop for safe two-handed work, while retaining the convenience of inching in either direction and being sure that no one at any

other station could cause any motion. When any two Pat-Stops are depressed, no motion is possible at any station whatever.

There have been a few questions raised about the Pat-Stop. Most often asked is "What if the operator's hand should slip off the Pat-Stop, wouldn't that cause a run?" The answer is no because if the hand slips from the control, the thumb being shorter leaves the Start button first, while the fingers still on the Pat-Stop keep it depressed an instant later or longer, causing the machine to stop.

Also contributing to this is the fact that the Pat-Stop actuator is about four times wider and has twenty times the area of the Start button, and the hand must slide a considerable distance in any direction before releasing it completely.

I've also been asked "What about those operators who use their index or middle finger on the buttons of the conventional control, because of the greater reach?" My answer is that this type of operating is dangerous because there is no point of vertical reference and any button might be accidentally pressed. The same reach may be attained with the thumb on the Pat-Stop system by rotating the control stations.

Houston

Demonstrate Auto-Positive Film

Donald Kenyon, Eastman Kodak graphic arts representative, presented a very interesting demonstration of the versatility of the Eastman Auto-Positive Film at the June meeting of Houston Litho Club. Scene of the meeting was the Printing Dept. of the University of Houston. Some of the many uses of the film were vividly presented by Mr. Kenyon.

Four applications for membership were approved at the June meeting of the board of governors of the club. Cecil Jeter, Hi Speed Litho Supply; Paul E. Guth, Minnesota Mining & Mfg. Co. and Beeler W. Myers, Jr., Clampitt Paper Co. were approved for associate membership and Miss Billie Jones, Jack Fulshear Co., was approved for active membership.

"CHAMPION" Deep Etch DOWN-DRAFT Lithographers Work Table

COMPLETELY ELIMINATES ALL HAZARDOUS FUMES

Check these advantages:

- ✓ Removes all hazardous fumes at their source—no odor in shop and offices.
- ✓ Table at convenient working height.
- ✓ Exhaust slot removes contaminated air through slot all around perimeter of working area at high velocity.
- ✓ Acid resistant KOROSEAL lined disposal pitches to a KOROSEAL lined 2" drain.
- ✓ Processing of plates on an everlasting smooth surfaced slate slab.
- ✓ Large heavy duty ball-bearing type built-in suction blower operates quietly and is belt driven by a standard speed motor.
- ✓ Reduces absenteeism.
- ✓ Tends to reduce insurance rates.
- ✓ Increases production.

SOME OF THE USERS OF "CHAMPION" EQUIPMENT

IN CHICAGO:
 Jalan & Ollier Engraving Co.
 Chicago Litho Plate Graining
 Cr.
 American Offset Co.
 Collins, Miller & Hutchings
 Superior Engraving Co.
 R. R. Donnelley & Sons Co.
 Central Type Setting Co.
 Caspers Tin Plate Co.
 American Can Co.

OUT-OF-TOWN USERS

Eastman Kodak Co.
 Rochester, N. Y.
 Gugler Litho Co.
 Milwaukee, Wis.
 Conner Lithographers
 Detroit, Mich.
 Hall Brothers
 Kansas City, Mo.
 Epsen Litho Co.
 Omaha, Neb.
 Atlanta Litho Co.
 Atlanta, Ga.
 Crane Howard Litho Co.
 Cleveland, Ohio
 Arrow Engraving Co.
 Cleveland, Ohio
 Marathon Corporation
 Neenah, Wis.
 A. L. Garber Co.
 Ashland, Ohio
 Litho Plate Service Co.
 Toledo, Ohio
 American Litho Co., Inc.
 Atlanta, Ga.
 Ideal Litho Service
 San Antonio, Texas
 Strobridge Litho Co.
 Cincinnati, Ohio
 Lithographic Plate Service
 North Hollywood, Cal.

IN LOS ANGELES:
 Mission Engraving Co.
 Dillon Lithograph Co.
 Colortone

DISTRIBUTORS

Bridgeport Engraver's Supply Co.
 California Ink Co.
 Harold M. Pitman Co.
 E. T. Sulzberger Co.
 Roberts & Porter, Inc.

IN CANADA
 Toronto Type Founders Co., Ltd.
 Latimer, Ltd., Toronto
 Robert Allworth, Ltd., Toronto



4 POPULAR SIZES

(Other Sizes Upon Request)

No.	Slate Slab	Overall Dimensions (All 33½" High)	Exhaust Blower Capacity: Cu. Ft. Air Per Minute	Motor H. P.
1	30"x40"	42"x50"	2500	1
2	42"x50"	54"x62"	3200	1½
3	50"x60"	62"x72"	4200	1½
4	60"x80"	72"x92"	4800	2

"CHAMPION" Improved TEMPERATURE CONTROLLED Developing Sinks

MAINTAINS EVEN
TEMPERATURE WITHIN A
FRACTION OF A DEGREE

Features:



- ✓ Disposal trough for tray contents in back for convenience.
- ✓ High back splash, sink aprons, etc. constructed of polished stainless steel, heliarc welded.

- ✓ Recirculating pump equalizes sink water temperature by forced flow of water around and under developing trays.
- ✓ Will maintain separate desired temperatures for sink trays (heating and cooling) and for storage compartment (cooling) to within a fraction of a degree of setting.
- ✓ Equipped with latest type hermetically sealed, trouble free refrigerating unit.
- ✓ In operation a continuous flow of water is not required. Result: no water wasted.

#1.....	3 Trays.....	20x24 Film Size.....	32½" x 74"
#2.....	3 Trays.....	26x30 Film Size.....	39" x 93"
#3.....	3 Trays.....	30x40 Film Size.....	49" x 105"
... and other sizes available for your special requirements.			

manufactured by **H. SCHMIDT & CO.**
ESTABLISHED 1891

317 S. Paulina St., Chicago, Ill.

Sealay 3-2404



Dallas

Huge Panel On Clinic Agenda

For the June 23 panel discussion scheduled for the Southwest Litho Clinic in Dallas, nine topics were chosen for discussion with 27 leading graphic arts representatives on hand to answer questions.

Topics and the men designated to lead discussions include:

Arc Lamps, Hank Wiener of Strong Electric Corp.; *Art Preparation*, William Neale of Tracy-Locke Advertising; *Camera*, Adolph Jez, Ansco, Nick Minotti, Chemco Photoproducts Co., Joseph Stuart, Du Pont, Paul Braman, Eastman Kodak Co. and Carl Abele, Gevaert Co. of America; *Ink*, Edward Blackstone, Sinclair & Valentine; Jack Brumley, Texas Printing Ink Co.; *Paper*, William Dodd, Champion Paper & Fibre Co., William R. Maull, Mead Paper Corp., Fred Poston, Southwest Paper Co., and Jack Thwaits, Warren Paper Co.; *Plates*; Ed Fritz of Azoplate Corp., Joseph Miller, Litho Aluminum Products Co., Harry Mueller, Litho Chemical & Supply Co., Bert Menne, Lithoplate, Inc., Mel Gebhard, Minnesota Mining & Mfg. Co. and Chester J. Woods, Jr., Warren Photoplate; *Press*, Charles J. Lupean, American Type Founders, Frederick Williams, Commercial Printing & Letter Service, Howard J. Seel, Harris-Seybold Co. and A. T. Kuehn, Miehle Printing Press & Mfg. Co.; *Rollers*, Peter Brogle, Sam'l Bingham Sons Mfg. Co., and William Sanders, Superior Roller Co.; *Stripping*, Robert Washburn, Blanks-Cadell Offset, Inc.

Chicago Craftsmen Elect Egan

Edward M. Egan of 20th Century Press, Chicago combination plant, was elected president of the Chicago Club of Printing House Craftsmen at its annual business meeting June 11. He succeeds Lowell Dummer of Bruce Offset Co.

Other new officers include Frank E. Swanberg, Spiegel, Inc., first vice president; Gordon Wilson, Western Newspaper Union, second vice president; Harry Dick, Advertising Pro-

motions, Inc., treasurer. Re-elected as financial secretary was John A. Radziewicz of Service Offset Corp. Robert E. Ludford, Jr., Chicago Lithoplate Co. continues as recording secretary.

Printing Management Course

A course leading to a certificate in Printing Management will be the highlight of the planned educational program of the Graphic Arts Institute of New England. The course, to be given at Boston University this fall, is the first New England attempt to provide a comprehensive training program for management and executive personnel in the graphic arts and also for others who need an overall picture of the conception, design, production and administration of printing and the printing industry.

Complaint Committee Formed

Kenneth Joseph, president of the Houston Graphic Arts Association has appointed a trade practice complaint committee. Members serving on the committee include Victor Flaherty, Sorg Printing Co.; Berton Young, Craftsman Press; Jack Eads, Webb Printing Co.; Vernon Hearn, Hearn Lithographing Co.; J. M. Martin, Quality Ruling; and Robert Welz, Carmax Corp.

New Hoffman Art Director

Samuel G. Muffaleto has been appointed art director of Harry Hoffman & Sons, Buffalo, printers and lithographers. He has been assistant art director of Comstock & Co., Buffalo advertising agency, the last six years. He will direct the creative art department in the company's new printing plant now nearing completion.

MASA Elects Lustig

Edward S. Lustig of Circulation Associates has been elected president of the Mail Advertising Service Association of New York City, Inc. Other officers elected are Vincent Nugent, B. Brown Associates, vice president; Jack Gold, James Gray, Inc., Inc., secretary; and Robert Hodes, Jr., Hodes Daniel Co., treasurer.

Litho Club Guide

ATLANTA

Robert H. Scheuer, Secy.
2118 Brannen Rd., S.E., Atlanta

BALTIMORE

Harold E. Hackman, Secy.
2950 Loch Haven Rd., Baltimore 18.

BOSTON

Vincent J. Aliberte, Secy.
2010 Revere Beach Pkwy., Everett
49, Mass.

BUFFALO

Edmond S. Sendker, Secy.
978 Ellicott St., Buffalo 9

CANTON

Robert G. Scheppan, Secy.
1510 Meadow Lane, N.W., Canton 9

CHICAGO

Emil Winter, Secy.
1301 Blackhawk St., Chicago

CINCINNATI

Buford Payne, Secy.
9 Burnham St., Cincinnati

CLEVELAND

Kenneth Aldridge, Secy.
1988 Caroline Dr., Mentor, O.

COLUMBUS

John Morgan, Secy.
905 W. Town St., Columbus, O.

CONNECTICUT VALLEY

Edward J. Yuskevich, Secy.
1847 Poquonock Ave., Poquonock,
Conn.

DALLAS

Donald A. Cauley, Secy.
1807 Mentor St., Dallas

DAYTON

Robert J. Mackin, Secy.
333 Salem Ave., Dayton 2

DETROIT

John Murphy, Secy.
13110 Santa Rosa St., Detroit 38

FORT WORTH

Vernon Kageler, Secy.
4933 Dunlap Dr., Fort Worth

HOUSTON

Frances Porter, Secy.
2301 Huldy St., Houston 19

LOS ANGELES

Curtis Bourland, Secy.
7101 W. 93rd. Pl., Los Angeles 45

MILWAUKEE

Jack W. Miller, Secy.
2572 N. 21st St., Milwaukee

NEW YORK

Louis Happ, Secy.
11 Darby Court, Malverne, N. Y.

PHILADELPHIA

Joseph H. Winterburg, Secy.
618 Race St., Philadelphia 6

PIEDMONT

Bernard A. Wilmering, Secy.
1503 Madison Ave., Greensboro, N. C.

ROCHESTER

Edward C. Potter, Secy.
198 Weston Rd., Rochester 12.

ST. LOUIS

Eugene Hanson, Secy.
4440 Bessie Ave., St. Louis 15

TULSA

Fridolph A. Holmberg, Secy.
1712 S. Owasso St., Tulsa

TWIN CITY

Leonard J. Holzinger, Secy.
1405 Chicago Ave., Minneapolis 4

WASHINGTON

Raymond Geegh, Secy.
P.O. Box 952, Ben Franklin Station,
Washington 4

CENTRAL WISCONSIN

Richard Kiser, Secy.
Route No. 2, Box 597, Menasha, Wis.

Success Story

Ever think why printed advertising is so successful? It is a personal message, aimed to win the reader's interest. It combines the artist's imagination and the printer's craftsmanship.

Printed advertising receives a cordial welcome in the home. It does not rely on a captive audience to project its sales message.

Moreover, the printed message establishes a bond of confidence between the advertiser and the consumer. Ink and printing paper impart a tangible and realistic character to the facts set forth by the advertiser in his message.

It is also true that advertising in graphic form makes a deep and lasting impression. Ideas in print leave a durable stamp on the reader's mind.

The papermaker has a special responsibility in helping the advertiser's message to achieve maximum effectiveness. Westvaco papermaking craftsmen are proud of serving the successful advertisers of the nation for 65 years. Printers and advertisers may confidently select the right paper for every printing technique. For example, the paper which reproduces the painting at the right is Westvaco's Pinnacle Offset, Blue White (Vellum), a truly distinguished uncoated offset, also available in cream white. Pinnacle Offset can be obtained, too, in regular finish, blue white or cream white.

This oil painting by Byron Thomas appears on the cover of Westvaco Inspirations, Number 207, which features a round-up of top-flight advertising illustration and graphic design. You may have a copy of this issue by writing to any of the Company addresses listed on this page, or your nearest Westvaco distributor.

Cover Artist

Byron Thomas, born in Baltimore, Maryland, in 1902, studied at the Art Students League before traveling extensively throughout the country. He was a contributor to Life Magazine and, as one of its war correspondents, depicted wartime England, Scotland and France. His work, shown at four one-man exhibitions in New York; at the Museum of Modern Art, Pennsylvania Academy of the Fine Arts, the John Herron Institute in Indiana, and Springfield Art Museum in Missouri, is also in several fine private collections. His honors include the Carnegie Institute Award in 1943 and the Frank Logan, First Prize for Lithography given by the Art Institute of Chicago. An instructor at the Cooper Union Art School until 1950, Mr. Thomas now lives at Woodstock, Vermont.



Sales Offices:

230 Park Avenue, New York 17
35 East Wacker Drive, Chicago 1
503 Market Street, San Francisco 5

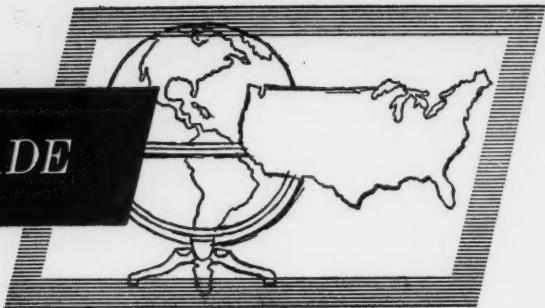


Willows With Children by Byron Thomas. From the Edwin Hewitt Gallery

West Virginia Pulp and Paper Company

Manufacturers of Westvaco Quality Papers

NEWS about the TRADE



Heinrich Named Eastern V. P.

Kurt E. Heinrich has been appointed vice president and general manager of Eastern Colortype Corp.,



Clifton, N. J., it was announced June 18 by Leon Leighton, Jr., president of the company. The appointment, which is retroactive to June 1, creates a new management position. Mr. Heinrich has been functioning as general manager for the firm.

The creation of the new vice presidency is part of a reorganization and expansion program which was begun by Mr. Leighton when he purchased the company in 1956.

Printers Register Protest

A protest against continuation of California's system of printing and binding school textbooks at the State Printing Office has been registered by the Employing Printers Association of San Francisco. A resolution addressed to the Governor and the Legislature, and signed in behalf of the Association by its secretary, L. A. Ireland, asks that the Legislature "enact and approve measures . . . to do away with the State monopolizing the printing of textbooks used in

our public schools which will give to private enterprise the right to print, bind and publish textbooks used in our public schools so that the industry can have the same opportunity to develop and expand as in all other states of the Union."

Lithography Sells Sausages

An aluminum foil cook-in tray closed with a peek-a-boo lid is the new package for Mott Haven frozen pure pork sausage. The full color lithographed lid features an appetizing vignette of the sausage accented by the canal scene that symbolizes the Mott Haven trademark. Under this trademark is the peek-a-boo window which invites inspection of the quality frozen product. The predominately royal and sea blue package was designed and lithographed by Milprint, Inc., Milwaukee.

New Topeka Litho Firm

J. M. Hart & Co., Inc., a new printing and lithographing firm, has opened in Topeka, Kan. The company is headed by Jack M. Hart, a salesman for the past 10 years for Hall Lithographing Co., Topeka.

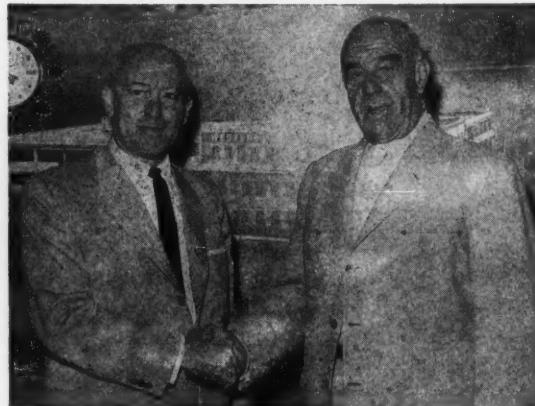
Shaw Heads Western Lithograph

John Shaw, executive vice-president and general manager of the Western Lithograph Co., Los Angeles, was elected president of the firm at the annual stockholders meeting. He succeeds Charles Ward, president of Brown & Bigelow, the parent company of St. Paul, who assumed the chairmanship of the Western Lithograph Co.

Mr. Shaw came to Western Lithograph three years ago as a salesman and advanced quickly to vice-president and general sales manager. For the last two years he has held the office of executive vice-president and general manager.

The board of directors also elected Charles Stowell as controller and Charles C. Bohrer, general superintendent, to the board. Other officers and directors re-elected were John B. Overall, vice-president and general sales manager; F. A. Miller, vice-president of manufacturing; R. W. Sauber, secretary-treasurer; Maury Engle, vice-president of Westline Products Division, and H. R. Weber, vice-president of Creative Point-of-Sale Division.

Charles A. Ward, right, president of Brown & Bigelow, parent company of Western Lithograph Co., Los Angeles, congratulates John Shaw on his appointment as president of Western.





For Very Important Occasions

As her wedding day approaches, no effort is spared to make sure that the bride will look her loveliest for that very important occasion.

There are important occasions in business too—when a new line of products is to be introduced, or a major sales campaign is to be launched—that demand more than an everyday printing job. Oxford Papers are made for just such occasions.

Oxford Papers are used by the best printers and lithographers. There are more than twenty-five grades to choose from, each made to do a particular printing job superlatively well. If you would like helpful advice on printing papers, call your nearby Oxford Merchant or write us direct.

Oxford Papers
Help Build Sales

OXFORD PAPER COMPANY
OXFORD MIAMI PAPER COMPANY

230 Park Avenue, New York 17 • 35 East Wacker Drive, Chicago 1

PRINTING PAPERS FOR BOOKS, MAGAZINES, COMMERCIAL PRINTING, BUSINESS FORMS AND PACKAGING



This insert is a sample
of the offset results
you can get on

OXFORD



Rangeley Offset

REGULAR FINISH

OXFORD PAPER COMPANY
OXFORD MIAMI PAPER COMPANY

RANGELEY OFFSET and WESCAR OFFSET (companion grades made at Rumford, Maine and West Carrollton, Ohio respectively) are bright, white papers of high opacity, exceptional strength and ink receptivity. They have excellent bond and are free from lint and fuzz. Designed to insure dependable performance at high speeds, they are recommended for fine reproduction of black and white halftones and full color process work. Rangeley and Wescar Offsets, in white, are available in both regular (smooth) and vellum finish. Wescar Offset, vellum finish, is also available in eight distinctive tints — ivory, canary, French gray, tan, green, blue, pink and golden yellow.

WESCAR TEXT is a brilliant white, opaque offset paper in vellum finish permitting fine gradations of tone from white to solid black. It reproduces details of line drawings, halftones and color process illustrations with distinctive fidelity. Wescar Text is a de luxe offset sheet meeting the most exacting standards for printing results and press performance.

RUMFORD OFFSET and **CARROLLTON OFFSET** (companion grades manufactured at Rumford, Maine and West Carrollton, Ohio respectively) are bright, white offset papers of good opacity and uniform surface. Free from lint or fuzz, they are carefully manufactured to give trouble-free press performance. Rumford Offset, in regular or vellum finish, and Carrollton Offset, in vellum finish, are recommended for quality offset reproduction at moderate cost.

TWO VALUABLE AIDS: (1) *The OXFORD PAPER SELECTOR CHART helps you select the right grade of paper for each job.* (2) *The OXFORD PAPER COST CALCULATOR quickly gives the exact cost per 1000 sheets for common weights and sizes of printing papers.* Ask your nearby Oxford Merchant or write us direct.

Nation-wide Service
Through Oxford Merchants

Albany, N. Y.	W. H. Smith Paper Corp.
Asheville, N. C.	Henley Paper Co.
Atlanta, Ga.	Wyant & Sons Paper Co.
Augusta, Maine	Carter Rice Storrs & Bement
Baltimore, Md.	The Mudge Paper Co.
Bethlehem, Pa.	Wilcox-Walter-Furlong Paper Co.
Boise, Idaho	Blake, Moffitt & Towne
Boston, Mass.	Carter Rice Storrs & Bement
Buffalo, N. Y.	Franklin-Cowan Paper Co.
Charlotte, N. C.	Henley Paper Co.
Chicago, Ill.	Birmingham & Prosser Co.
	Bradner, Smith & Co.
	Marquette Paper Corporation
	Midland Paper Company
	The Whitaker Paper Co.
	The Johnston Paper Co.
	The Whitaker Paper Co.
Cincinnati, Ohio	The Cleveland Paper Co.
Cleveland, Ohio	Graham Paper Co.
Dallas, Texas	The Whitaker Paper Co.
Dayton, Ohio	Birmingham & Prosser Co.
Des Moines, Iowa	Chope-Stevens Paper Co.
Detroit, Mich.	Blake, Moffitt & Towne
Fresno, Calif.	Henley Paper Co.
Gastonia, N. C.	Green & Low Paper Co., Inc.
Hartford, Conn.	Carter Rice Storrs & Bement
High Point, N. C.	Henley Paper Co.
Indianapolis, Ind.	MacCollum Paper Co.
Kalamazoo, Mich.	Birmingham & Prosser Co.
Kansas City, Mo.	Birmingham & Prosser Co.
Knoxville, Tenn.	Graham Paper Co.
Little Rock, Ark.	Louisville Paper Co.
Long Beach, Calif.	Roach Paper Co.
Los Angeles, Calif.	Blake, Moffitt & Towne
Louisville, Ky.	Blake, Moffit & Towne
Manchester, N. H.	Graham Paper Co.
Memphis, Tenn.	Louisville Paper Co.
Milwaukee, Wis.	C. H. Robinson Co.
Minneapolis, Minn.	Allman-Christiansen Paper Co.
Nashville, Tenn.	Sensebrenner Paper Co.
Newark, N. J.	Wilcox-Mosher-Leftholm Co.
New Haven, Conn.	Graham Paper Co.
New Orleans, La.	Bulkey, Dunton & Co., Inc.
New York, N. Y.	Carter Rice Storrs & Bement
Oakland, Calif.	Graham Paper Co.
Omaha, Neb.	Baldwin Paper Co., Inc.
Pawtucket, R. I.	Bulkley, Dunton & Co., Inc.
Philadelphia, Pa.	Green & Low Paper Co., Inc.
Phoenix, Ariz.	Kennelly Paper Co., Inc.
Pittsburgh, Pa.	The Whitaker Paper Co.
Portland, Maine	Blake, Moffit & Towne
Portland, Oregon	Western Paper Co.
Reno, Nevada	Carter Rice Storrs & Bement
Richmond, Va.	Atlantic Paper Co.
Rochester, N. Y.	Wilcox-Walter-Furlong Paper Co.
Sacramento, Calif.	Blake, Moffit & Towne
St. Louis, Mo.	Birmingham & Prosser Co.
	Graham Paper Co.
	Shaughnessy-Kniep-Hawe Paper Co.
San Bernardino, Calif.	Tobey Fine Papers, Inc.
San Diego, Calif.	Blake, Moffit & Towne
San Francisco, Calif.	Blake, Moffit & Towne
San Jose, Calif.	Blake, Moffit & Towne
Seattle, Wash.	Blake, Moffit & Towne
South Bend, Ind.	Birmingham & Prosser Co.
Spokane, Wash.	Blake, Moffit & Towne
Springfield, Mass.	Carter Rice Storrs & Bement
Stockton, Calif.	Mill Brand Papers
Tacoma, Wash.	Blake, Moffit & Towne
Toledo, Ohio	Blake, Moffit & Towne
Tucson, Ariz.	Paper Merchants, Inc.
Washington, D. C.	Blake, Moffit & Towne
Worcester, Mass.	John Floyd Paper Company
York, Pa.	Carter Rice Storrs & Bement
	The Mudge Paper Co.

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OXFORD MIAMI PAPER COMPANY

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PRINTING PAPERS FOR BOOKS, MAGAZINES, COMMERCIAL PRINTING, BUSINESS FORMS AND PACKAGING

Niagara Appoints Paul

The appointment of Thomas J. Paul of Meadowbrook, Pa. to direct a new sales development program



Thomas J. Paul

for Niagara Lithograph Co., Buffalo, was announced recently by Carl N. Reed, executive vice president of the firm. Mr. Paul, a native of Buffalo, formerly was a division manager for C. A. Swanson & Son of Omaha, a subsidiary of Campbell Soup Co. For the past two years he was an account executive with N. W. Ayer & Son, Inc., Philadelphia. His business experience also includes five years with the New York State Department of Labor.

In making this announcement, Mr. Reed said that Mr. Paul "brings to Niagara Lithograph a background of marketing and sales experience which we feel will add depth of service for our clients."

Xerography Plant Established

A new Xerography installation has been established at 935 South Olive St., Los Angeles, by the George Reproduction Co., 27-year-old San Francisco photo-lithography firm. It is the first new plant in the nation to be planned around Xerographic equipment, according to the Haloid Company. George Reproduction's San Francisco plant houses the largest Xerography department in commercial operation in the country.

Donald George, son of the firm's president, W. T. George, and sales manager at San Francisco, will also be in charge of the Los Angeles installation which includes a branch

sales office. Thomas Faulkner has been named branch sales manager. Equipment in the new plant includes a #1218 Xerox camera and IBM typewriters for composition.

Blattenberger Starts Press

Raymond Blattenberger, United States Public Printer, recently pushed a button setting into operation a new four-color printing press at the McCall Corp., Dayton. The press, described by Jack Storms, assistant general manager at McCall's, as unique in this country, is a double, four-color web offset press. The double-ended press, which took two months to set up, will increase the plant's offset output by 50 per cent, Mr. Storms said. The new machine will handle 72 pages of *Readers Digest* size, or 32 of the news magazine size.

The 130-ton press is 60 feet long and 16 feet high. Ink is dried with a combination of hot air and high-pressure steam.

Re-Design Letterpress?

Sir James Waterlow, chairman of the recent PATRA Rotary Letterpress Conference in London, stated that a radical alteration in the design of the letterpress machine is necessary if letterpress is to compete with lithography and gravure. Sir James' remarks were noted in *Printing News*, a British weekly.

According to the report, Sir James claimed that although the flat-bed machine had been developed to peak efficiency, it could not compete with the speed of rotary machines in general use in other processes. He stressed that there must be cooperation between the industry and its suppliers to create the right climate for research. Printing machine manufacturers should devote more time to the design of small sheet-fed rotary letterpress machines for the small printer and should further investigate the value of web-fed rotary in the medium field.

Jaffe Directs New Service

Herman Jaffe, graphic arts consultant and sales executive, has been named to head a new creative service



Herman Jaffe

department of Eureka Specialty Printing Co., Scranton, Pa. lithographing firm. Mr. Jaffe will have his headquarters at Eureka's New York office, 11 W. 42nd St.

John W. Young, Eureka's general sales manager, announced that the new service has been created to assist advertisers, advertising agencies, manufacturers, fund-raising groups, and associations through the use of poster stamps and seals.

Mr. Jaffe, a creative printer in New York since 1908, is publisher of the *Benjamin Franklin Historical Biography*, published this year. More than 1,300,000 copies of the biography have been purchased.

Several years ago, in cooperation with the Metropolitan Museum of Art, Mr. Jaffe created and developed the popular Metropolitan Miniature Art Poster Stamps and Album. Highly successful as a cultural, educational, and business project for the Museum, these sets are still aiding the Museum to secure memberships.

Eureka, a specialized printing firm founded 51 years ago in Scranton, is recognized as one of the world's major producers of trading stamps, poster stamps, fund-raising seals, and other printed gummed paper products. In addition to its Scranton plant, Eureka serves its roster of national clients from a plant at Danville, Ill., which was built in 1952.

"Bill of Rights," "Declaration of Independence" Produced At Show



View of the Amalgamated Lithographers of America's booth at recent AFL-CIO show in Kansas City, Mo. Royal Zenith 29 offset press produced copies of the "Bill of Rights" and "Declaration of Independence."

Late in May, the Zarkin Machine Co., Long Island City, N. Y., set up a Royal Zenith 29 single-color offset press in the booth of the Amalgamated Lithographers of America at the AFL-CIO Union Industries Show in Kansas City, Mo. Under the direction of Jerry Reinitz, general manager, Herbert Blomquist, graphic arts equipment division manager, and Jules Kaplan, Zarkin demonstrator, the press ran constantly for six days, producing a 2-color "Bill of Rights" and a 4-color "Declaration of Inde-

pendence," souvenirs which were given away to most of the 300,000 visitors to the show.

The press prints a 23 x 30" sheet. The "Declaration of Independence" souvenir was printed one up, four color process. Operating an average of eight hours a day at 6,000 impressions per hour, the press produced in six days, 288,000 impressions. This added up to 38,000 pieces of the 4-color job and 68,000 of the 2-color job, given away "hot off the press" to spectators.

Jefferson Plans Expansion

Jefferson Printing Co., St. Louis, has announced plans for a new contemporary-styled plant and office building in mid-town St. Louis. The new building will adjoin the plant's present building at 3828 Washington Ave., and is expected to be ready for occupancy early in 1958.

The new structure will add 5400 sq. ft. of office and plant space to Jefferson's present building and bring the printing company's floor area to a total of 20,400 sq. ft. In addition there will be approximately 10,000

sq. ft. of office space available in the building for lease to tenants.

Fully air conditioned, the building will have acoustical ceilings and recessed lighting fixtures.

The new building will put Jefferson Printing Co., all under one roof. The company which specializes in catalogs, pamphlets, brochures, advertising and office and factory forms, is a combined letterpress and offset shop, with about 60% of the work in offset. Complete offset facilities, including platemaking are provided.

Jefferson Printing Co., was founded

in 1938 by its present owners, Harry L. and Joseph H. Laba. Its first plant was at 4700 Easton Ave., and after three expansions at that address moved to the Washington Ave. building.

LNA Poster Group Lauded

Andrew Donaldson, Jr., chairman of the lithographic poster committee of the Lithographers National Association, recently reported that his group had a very active and productive year, successfully tackling many of the problems affecting the product group. In recognition of its many accomplishments in behalf of poster lithographers, the board of directors of LNA has given the poster committee full-fledged status. It has been made a permanent advisory committee with direct representation on the LNA executive committee.

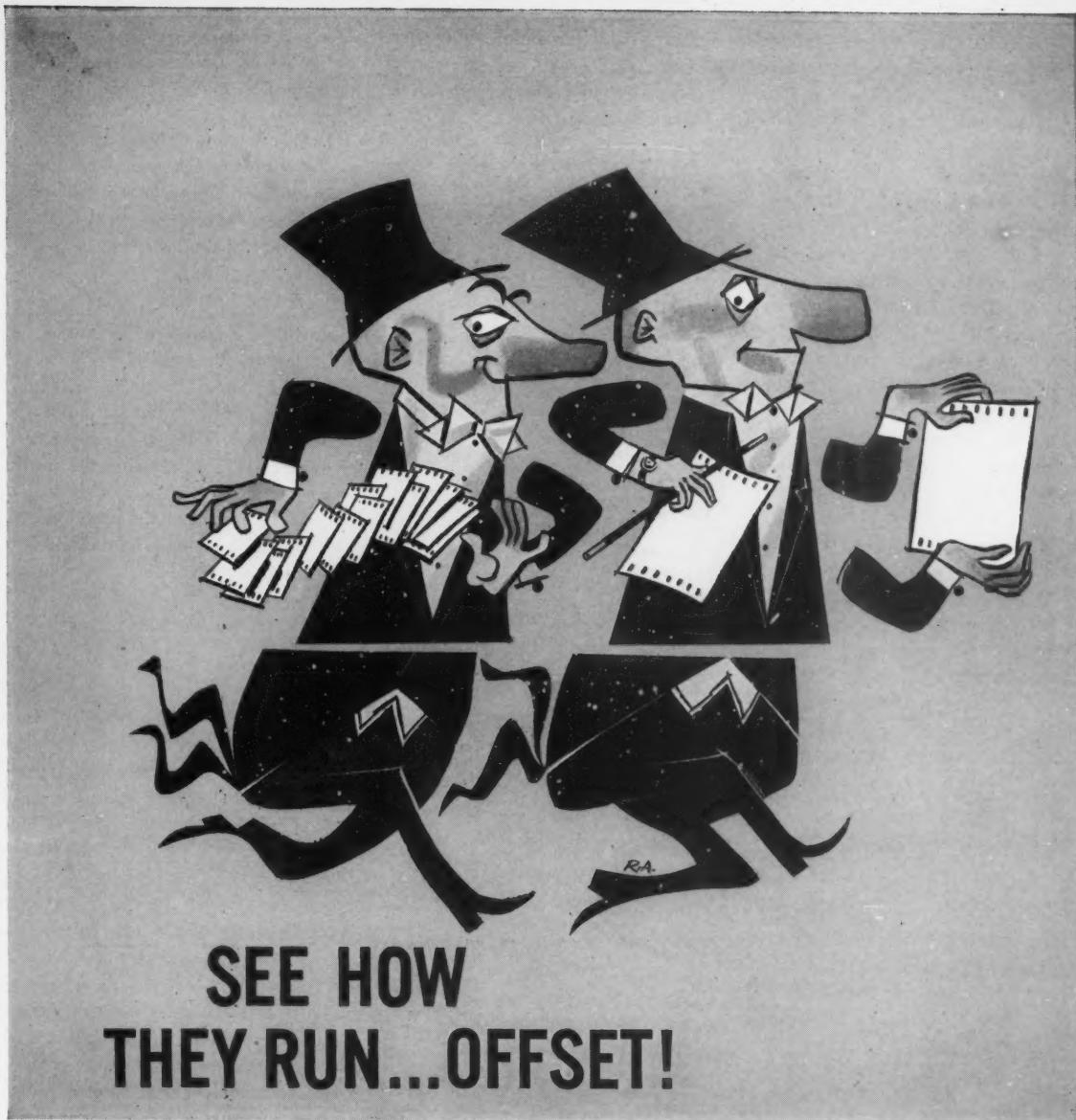
The poster lithographers, who met four times during the past year, have subscribed to a list of trade customs which they expect to publish in the near future. The practices cover such matters as plate and stock storage, over and underruns and many other aspects of their operations.

A conference was held at the annual convention of the Outdoor Advertising Association in Los Angeles, where such technical aspects as paper stretch and the use of caustics in paste were discussed. A special subcommittee was appointed to meet with a committee from the poster plants to iron out these matters to the mutual satisfaction of lithographers and outdoor plant owners.

The poster lithographers, who filed a letter of protest on the pending highway bill, worked in close co-operation with OAA in fighting the restriction this legislation would place on outdoor advertising.

Edward O. Mernagh Dies

Edward O. Mernagh, 84, president of Mernagh Printing and Lithographing Co., St. Louis, died in St. Louis, June 11, following a short illness. Mr. Mernagh is survived by a son, Edward G. Mernagh, who was president of the Graphic Arts Association of St. Louis, in 1951, and a daughter, Mrs. H. G. Quante.



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ALA Forms Study Committee

The Amalgamated Lithographers of America have formed a new five-man committee with Edward Swayduck, president of Local 1, New York, as chairman to study development of new equipment and methods in the lithography industry.

According to Mr. Swayduck, the new committee will invite top management from major lithographic equipment manufacturers and suppliers to a five-day meeting planned for mid-summer in Eastern Canada, to discuss implementation of new processes for better lithographic production. Cold type setting methods, photo type setting, photon, new press developments, plates, scanning devices, short cuts to the camera, etc., will be studied.

The purpose of the meeting, reports Mr. Swayduck, is to consider the impact of new equipment and methods on ALA jurisdiction, and to develop high-level liaison between manufacturer suppliers and the Union for future lithography industry planning.

Sun Acquires Bensing Bros.

Sun Chemical Corp., Long Island City, N.Y., has contracted to buy Bensing Bros. & Deeney, leading printing and litho ink organization, it was announced last month by Norman E. Alexander, president of Sun.

"The acquisition of Bensing Bros. & Deeney represents an important step in our program to expand and strengthen the Sun Chemical organization," said Mr. Alexander, who assumed the presidency of Sun in February of this year.

Bensing Bros. & Deeney will continue to operate under its present name and with its present management as a division of the Sun Chemical Corp.

Lotz in New Post

William Lotz has been appointed vice president of Darling-Payne Corp., New York, the offset division of the Ernest Payne Corporation. Mr. Lotz was associated with Thomas Darling, co-founder of Darling-Payne, for more than 18 years. Beginning in the service department, he ad-

vanced to administration and sales in 1940. In 1954 he was appointed exclusive New Jersey representative for both corporations.

Contest Deadline—Sept. 13



Ricki Wertz, Pittsburgh Playhouse actress, points out that although 30 days hath September, the one to really remember is September 13, the final date for entries for the 1957 Printing Industry of America Printers and Lithographers' Self-Advertising Exhibition and Awards. Entries have been coming in from all over North America for this sixth annual competition, which is co-sponsored by P.I.A. and the Miller Printing Machinery Co. of Pittsburgh. Prizes include cash awards and "Bennys", the Benjamin Franklin statuettes denoting the best in self-advertising.

Specialty Firms Merge

Kemper-Thomas Co. and the Osborn Co., San Jose, Cal., producers of advertising calendars, business gifts and advertising specialties, have merged to form Osborn-Kemper-Thomas, according to Murray Sobin, western region sales manager. Osborn was purchased by Kemper-Thomas three and one-half years ago.

Ban On Billboards

The Illinois Toll Highway Commission, a state government agency, has issued an order banning billboards from the right-of-way of the 187-mile toll highway network now under construction in the state. This action against billboards, said Austin Wyman, chairman of the commission, was taken "both from a safety standpoint and an aesthetic standpoint."

Printing School Moves

The Southwest School of Printing, formerly located in Dallas, has been moved to Sam Houston State College in Huntsville, Tex. and will function

as a part of the college. The school is supported by publishers and commercial printing plant owners of Texas.

Under the new arrangement, the school will offer a 21-month printing course to non-high school graduates, as well as a regular four year course leading to a bachelor's degree, with a major in printing.

Champion Expansion in Texas

Champion Paper and Fibre Co.'s Texas division at Pasadena will undoubtedly receive from \$12 million to \$15 million of the \$84 million the company will spend during the next five years, according to Karl Bendessen, vice president of the paper firm. The multi-million dollar program of expansion was announced recently in New York by Reuben Robertson, Sr., chairman of the board.

Irving Thorner Dies

Irving Thorner, former head of the graphic arts department of Medo Photo Supply Corp., New York, died June 7 in Florida where he had resided since his retirement in 1952. Mr. Thorner also had been associated with Ansco and Gevaert Co.

ALA Initiates Workshop

The Amalgamated Lithographers of America, Local 17, San Francisco, has initiated a series of two-session workshop courses in color work covering the PDI photo-scanner, the handling of Lithure and Lithogravure plates, and operation of the Harris 29" press. Each course runs for two four-hour evening sessions, and each class is limited to five men. Color and platemaking facilities of the Harry W. Brintnall Co. and press facilities at the local Harris-Seybold offices are being used.

Mrs. E. Sanders Dies

Mrs. Esther Sanders, 78, treasurer of Rapid Mounting & Finishing Co., Chicago, died May 15. She was the widow of Leo Sanders, founder of the company, who died 18 years ago. Since then, Mrs. Sanders continued to be closely identified with the company's operations.

ILLUSTRATION, ORIGINALLY USED TO ADVERTISE
"DACRON"® POLYESTER FIBER, COURTESY OF
E. I. DU PONT DE NEMOURS & COMPANY, INC.
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We cherish this devotion to one of our favorite products, yet we constantly strive more closely to approximate perfection.

The sheet on which this insert is printed is a good example of our ceaseless quest. Its satin-like finish is attained by supercalendering and then embossing. We call it Satin Shell. As you see, the dual finishing operation imparts to the sheet the desirable quality of *glossiness without limpness*.

Other features of this unusual finish are: 1) it offers exceptional resistance to smudges and fingerprints; 2) the lustrous surface gives a sheen to halftone illustrations, especially the darker areas; 3) the embossing adds texture to the backgrounds and illustrations in a printed piece.

Beckett Brilliant Opaque is supplied in five book paper weights, in three cover weights and in double-thick. A request to your paper merchant or to us will bring samples to your desk.

Satin Shell finish is also available on Beckett Offset and Beckett Hi-White.



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Makers of Buckeye Cover, Duplex Buckeye Cover, Beckett Cover, Spanish Grain Duplex Cover, Beckett Brilliant Opaque Cover, Beckett Text Cover, Buckeye Text, Beckett Text, Tweed Text, Beckett Vellum, Beckett Offset, Beckett Brilliant Opaque, Beckett Hi-White, Greetings, Announcements, Writings and Specialties.

THIS IS BECKETT BRILLIANT OPAQUE, SATIN SHELL FINISH, 80 LB.

Master Printer Section Formed

Norman Jacobsen, president of The Huron Press, Chicago litho firm, was elected president of the new Master Printer Section of the Graphic Arts Association of Illinois, which was organized in Chicago May 15. Other officers include Herbert Schoen, Webb-Linn Printing Co., first vice president; William Reeves, The Kelm-scott Corp., second vice president; and C. J. Farwell, The C. J. Farwell Co., secretary-treasurer.

Some 70 open shop members of the Graphic Arts Association participated in the organization meeting which adopted a constitution and elected the officers. Over 220 members of GAAI will automatically become members of the new section which was created to implement in Illinois the services of PIA's national Master Printer section.

At the meeting, Kurt H. Volk, Bridgeport, Conn. lithographer and president of PIA's Master Printer section, spoke on the importance, both economic and social, of the open shop printing plant and the work of the MPS in servicing the industrial and labor relations needs of these printers.

The organization committee for the new section was headed by Col. H. R. Kibler of W. F. Hall Printing Co., Chicago, and a vice president of PIA. Serving with him were Howard Knowlton of Knowlton-Washburn Co., Chicago litho firm, O. R. Sperry of R. R. Donnelley & Sons, and Norman Goddess, counsel for GAAI.

Eventually, according to Frank J. Bagamery, Jr., secretary-manager of the Graphic Arts Association of Illinois, a union employer section is expected to be organized to coordinate in Illinois the services of PIA's union employer section.

Teamwork Urged by Hardt

D. A. Hardt, manager of merchant sales for Kimberly-Clark Corp.'s Printing and Writing Paper Division, warned delegates to the Heart of America Paper Association's Kansas City convention of factors threatening the merchant-manufacturer relationship. He said that greater

teamwork between wholesale paper merchants and paper manufacturers is essential to the solution of common problems.

"The introduction of newly developed printing presses which will convert substantial tonnage from sheets to rolls represents a danger," Mr. Hardt pointed out, because "there is always a greater tendency toward direct selling where rolls are involved."

Editor Joins ATF

Walter Kubilius, formerly research editor for *Book Production*, has joined American Type Founders Co., Inc., Elizabeth, N. J., as assistant to Rod Grieg, advertising manager. Mr. Kubilius recently escorted a group of commercial printers and binders to the "Graphic 57" machinery exhibition in Lausanne, Switzerland, followed by a tour of leading printing, binding and other graphic arts plants in Europe.

School Board Votes \$1.8 Million Budget

THE MIDDLETOWN DAILY RECORD

Record Wins National Award As Most Outstanding Tabloid



Winning front page of the Middletown (N. Y.) Daily Record is shown at the bottom of this April 12 issue of the tabloid daily, which topped all other tabloid size newspapers in the 27th annual N. W. Ayer competition. Three top executives of the offset newspaper, are shown in the upper photo, holding a copy of the prize-winning paper. Produced by web offset on a Waldron Trailblazer press, the paper uses no hot metal. Cold-type units for news and headlines include three Justowriter Recorders and two Reproducers, an IBM typewriter, two Variotype units, and three Mergenthaler Prototype units. Full story of the offset adventure was told in the picture story in the February ML, starting on page 32.

Trade Practice Study

A steering committee of book lithographers has been established by the board of directors of the Lithographers National Association to study trade practices to improve the existing relationship between book producers and publishers.

The decision to establish the committee, which is headed by William H. Bulkeley, vice president, Connecticut Printers, Inc., Hartford, was taken at the LNA Convention in April.

Eleven LNA members who produce offset books participated in a full-scale discussion of the problems presently besetting them in this product category. Some of the trade matters aired at the meeting included: Marketing practices in relationship to paper sales to publishers and book manufacturers; the problem of serving as a paper warehouse for publishers; the problem of becoming bankers for publishers; the ownership of negatives; existing contracts with publishers; storage of book plates, and standardization of trade practices.

A questionnaire will be sent to book manufacturers to develop information concerning trade practices that now exist, and to take steps to eliminate any unsatisfactory practices that are a holdover from the past as offset becomes more dominant in the book-manufacturing field. The steering committee plans to meet several times prior to the next convention in 1958.

K-C Sole Paper Firm Awardee

Kimberly-Clark Corp. placed three printed pieces among the winners in the Society of Typographic Arts' 30th Annual Exhibition of Design in Chicago Printing. The exhibition, held recently at the Art Institute of Chicago, selected the year's best in design. (See ML June, page 77.)

Kimberly-Clark, the only paper manufacturer listed among the 104 winners, was honored for its "Sell the Eye" flip chart, a Texoprint (plastic printing paper) news letter-head, and the new Munising Bond swatch book.

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targets at once...

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WHO PRINTS
WITH PDI PLATES
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BIGGEST TARGETS
SIMULTANEOUSLY...
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FOR HIS CUSTOMERS,
BIGGER PROFITS
FOR HIMSELF.**

Lithure and Lithengrave hard-metal offset plates . . . a great advance in design and quality.

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- higher productivity from standardization • indefinite life for reruns • reduction of paper spoilage • color uniformity throughout the run

Lithure for positive work, Lithengrave for your negative—helps deliver a finished product whose quality means new customers and steady customers, and whose production efficiency means more profit.

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A SUBSIDIARY OF TIME INC.**

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230 California St., San Francisco 11, Calif.
Commercial Trust Bldg., Philadelphia 2, Penna.

Battle Printing Tax

Another round in the 15-year old battle over imposition of a "sales tax" on the printing business in Illinois got under way in the state legislature at Springfield May 15. Thus far the printers, with support from firm court rulings, have been successful in maintaining their position that printing is not a retailing business, but a service industry, like barbering, auto repair, dentistry and the like, and not subject, under this definition, to the retailers' sales tax levy.

In a completely surprise move, the state revenue department introduced a bill which seeks to amend the present tax act by extending the definition of "retailer" to include sellers of personal property produced on special order.

This devious and indirect approach of the state administration to tax printers, as they do grocers and other retailers, was promptly challenged by Illinois printing organizations, who, as in the past, have pooled their forces behind the Graphic Arts Association of Illinois which acts as leader of the perpetual fight.

With only 45 days of the biennial session left, O. H. ("Doc") Runyan, veteran legislative director of the statewide GAAI, didn't have too much time to get into action. By hustling, though, he organized a shock corps of printers in the state's election districts, where they were to deal with their respective senators and representatives. Final disposal of the issue was not anticipated before the closing hours of the current session which had to adjourn by midnight of June 30.

Weis Honored by Employees

Employes of the Stecher-Traung Lithograph Co., Rochester, gave a silver testimonial tray to Charles W. Weis, Jr., former president of the organization, who recently was named chairman of the board.

The tray was given by the Stecher-Traung Craft Club, a company organization representing all employes. Company officers and the board of directors made the presentation at the

company offices in honor of Mr. Weis' "many years of service to the company and the graphic arts industry."

"Little Offset" Pay Up

Increases of from 25 to 35 cents an hour are provided members of Oakland (Cal.) Offset Reproduction Artisans Union No. 473, AFL "little offset" union, by terms of a contract signed recently with 10 lithography plants in the East Bay area. This brings the maximum rate up to \$3.25. In addition, the contract provides a 10 percent differential between day and night shifts and a 10 percent premium for foremen.

The contract runs for two years, with an additional 3.5 percent increase in wages to take effect a year from now.

M-G-D Report Sales Increase

Miehle-Goss-Dexter, Inc., Chicago, reported net sales for the first six months of the current fiscal year totalled \$34,404,524, an increase of 12 percent over last year's first half sales. Earnings for the 6-month period rose to \$2,586,793, equal to \$1.95 per common share, compared to \$1,961,292, or \$1.48 a share a year ago.

220,970 Cards For \$25

The case of the 220,970 Christmas cards lithographed by California Artists, Inc., Long Beach subsidiary of the U. S. Crocker Co. and sent by them to the city dump has finally been disposed of by the Southern California courts. A ruling has been made in favor of Mrs. Claude L. McFaddin, printing broker, who late in 1955 purchased the cards from the city dump for \$25. Crocker sued for their return, placing the value at \$8,000 but protesting that it had been their intention to have the cards destroyed. The courts ruled, however, that the company had abandoned them, and gave legal possession to Mrs. McFaddin.

Press Mfg. Names Eaton

Douglas Eaton has been named eastern sales representative for George Hantscho Co., Inc., Mt. Ver-



Douglas Eaton

non, N. Y. For the past several years Mr. Eaton has been a sales and technical representative for J. H. & G. B. Siebold Co., Inc., New York.

Mr. Eaton's early web press experience was gained operating web fed lithographic presses and as a demonstrator on rotary presses for Webendorfer Wills Co., pioneer in the rotary lithographic field. At the outbreak of World War II, Mr. Eaton was assigned to the engineering school at Fort Belvoir, Va. as an instructor in map reproduction, later to be assigned as production manager of the Western Pacific edition of *Yank*, the Army weekly, where he supervised the erection and operation of the first litho presses on the Western Pacific islands. *Yank* operated rotary offset presses on Saipan, Okinawa and at Manila. Following discharge from the Army, he served as a government consultant to the Far East on printing and lithographic procedures, equipment and production.

Graphic Arts Aide Dies

Russell H. Herrell, 62, Washington, D. C., died May 27 at Garfield Memorial Hospital of a cerebral hemorrhage. Mr. Herrell formerly was assistant to the president of National Graphic Arts Expositions, Inc., during the Sixth Educational Graphic Arts Exposition held in Chicago in 1950.

Appointments At BB&D

Bensing Bros. & Deeney, Philadelphia, recently announced the appointment of Robert H. Bensing as eastern sales manager for the company's flexographic ink division.

John B. Plunkett also has been advanced by the firm and now is assistant eastern sales manager and director of purchasing. With the company since 1937, Mr. Plunkett now is the oldest employee in length of service.

Golf, Anyone?

Country club fairways in the Chicago area have been swarming with printers and lithographers these summer days, with more to come.

July 13 is the big day for golfers in the Chicago Lithographers Club, which will gather at Midwest Country Club for their annual Play Day Party. Al Rietz of Interchemical Corp.'s IPI division, is master of ceremonies for the day's program, that concludes with a dinner and distribution of prizes in the evening. Results will be available for next month's issue.

The Chicago Printers Supplymen's Guild got their golf meet off at River Forest Country Club June 7 and the Craftsmen's Club went at it at Nordic Hills Club June 28. That same day the Chicago chapter of the Screen Process Printing Association played at Itasca Country Club and the Employing Bookbinders Club was to be out at White Pines Country Club July 16. Other dates: Young Printing Executives of Illinois at Chevy Chase Country Club, May 24; Calumet Ben Franklin Club at Oak Hills Country Club, June 20; Grafites at Midwest Country Club, June 21; North Side Printers Guild, Glendale Country Club, July 9.

The Chicago Printing Ink Manufacturers Association couldn't find anywhere to play just when they wanted to, so set their tournament for River Forest Country Club on Aug. 16, about a month later than they usually play.

Winding up the summer golfing services, the Chicago Printing Industry's annual championship tournament is set for St. Andrews Golf

and Country Club on Aug. 27. This affair, sponsored by the Bee Bindery of Chicago, is open to anybody, if he's a printer, and about 400 are expected to compete for the many prizes put up by Art Blitstein, president of Bee Bindery. This year they'll have a National Dog Caddy contest to round out the program.

Tour Harris-Seybold

Harris-Seybold Co. was host to the executive committee of the National Safety Council's printing and publishing committee when its spring meeting was held in Cleveland May 23-24. Guided by W. P. Spilier, company vice president, engineering, the committee toured the Harris plant to see for themselves how safety is built into the latest Harris offset press models. After luncheon, the committee got down to business in a plant conference room and next day wound up their quarterly session at a downtown Cleveland hotel.

Du Pont Appoints Hurd

Donaldson B. Hurd, Boston district manager for the Du Pont Photo Products Department, has been named supervisor of the newly announced Du Pont photopolymer printing plate development program. Development of a pre-sensitized, flexible, plastic plate was announced recently. Field testing is expected to begin later this year, with commercial availability about two years away.

Zinc Output Seen Rising

World production of slab zinc should reach an all time high in 1957, the American Zinc Institute was told at its recent meeting in Chicago. The U. S. will lead in both zinc and lead production stated Richard H. Mole, of the U. S. Bureau of Mines, in his review of market conditions. Of the 3,141,000 short tons of zinc expected to be produced worldwide, one million will come from U. S. mines, he said. Another 550,000 short tons of lead will also be mined here, he estimated, with worldwide production set at 2,328,000 tons. Other big producers of zinc, Mole said, are Russia and Canada.

CIT Students Visit Ideal

A group of 24 students from Carnegie Institute of Technology recently toured the Chicago factory and research laboratory of Ideal Roller & Mfg. Co. where sales engineers explained roller manufacturing operations and their exacting formula and measurement requirements. The group saw hundreds of synthetic and rubber formulas available to the divisions of the graphic arts industry and also many new materials and processes being tested.

Forest Joins Chemco Sales

Edwin G. Forrest has joined Chemco Photoproducts, Inc., Glen Cove, N. Y., as technical sales representative of the New York branch. Mr. Forrest served his apprenticeship in the photographic department of Bingham Photo Engraving, which company he was associated with for 10 years.

Suncolor Opens in Phoenix

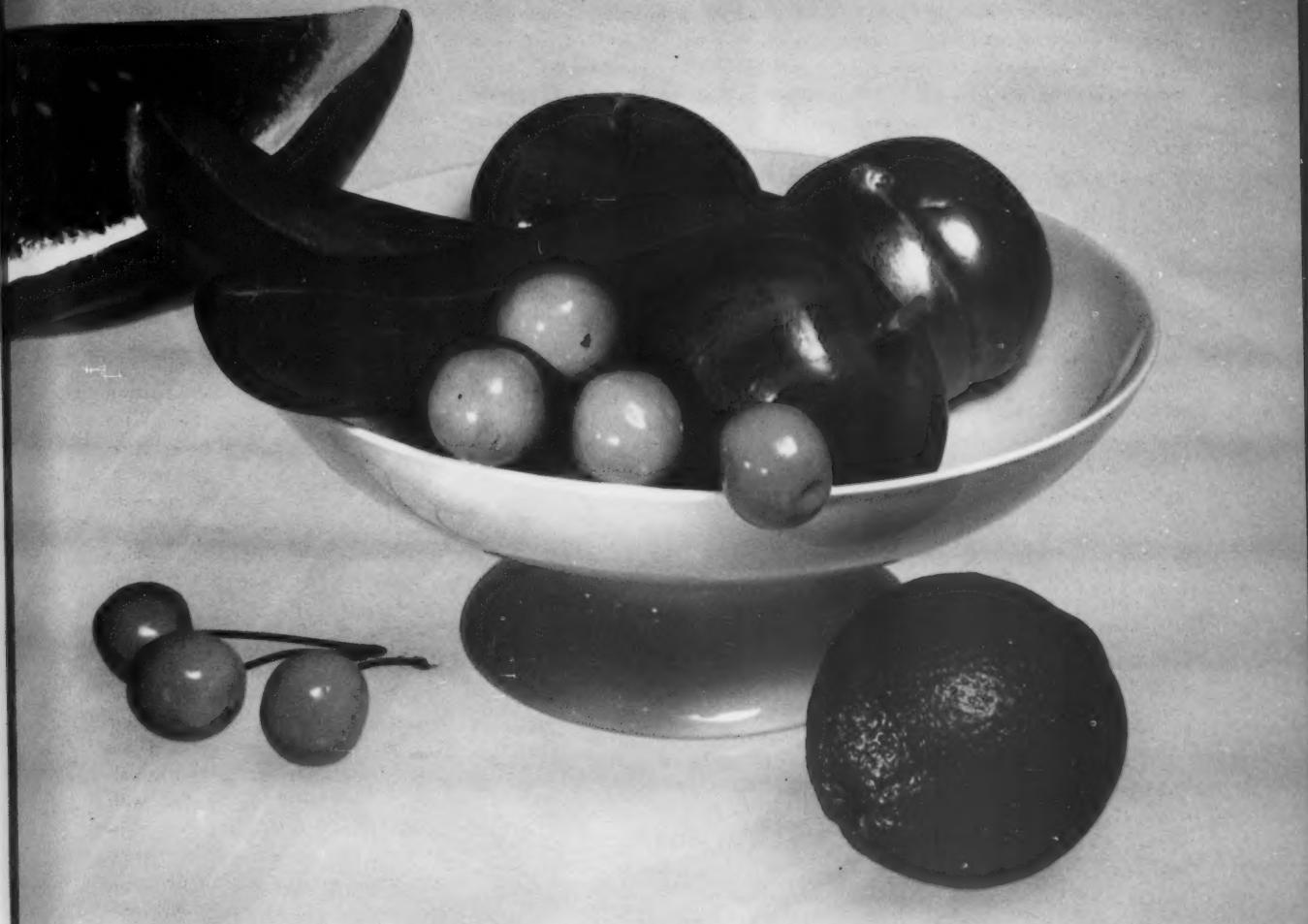
C. R. Fenwick, Phoenix, Ariz., has announced the opening of Suncolor Lithograph. Mr. Fenwick said his new business includes equipment valued at \$60,000. Associated with lithography for 24 years, Mr. Fenwick came to Phoenix 12 years ago from Chicago. He said his firm will specialize in brochures, maps and catalogs.

Intertype Names Morrison

The appointment of Vincent B. Morrison, Jr., as a representative for the southern Manhattan territory of Intertype Corp., Brooklyn, was announced recently. Mr. Morrison, who has served Intertype in the New England area, is a practical printer with more than 10 years' experience as a machinist-operator.

Brandmark Joins GPI

David Brandmark of the Ink Corporation of America has been appointed district sales representative for General Printing Ink Corp's metropolitan New York and New Jersey area. Mr. Brandmark has been in the printing ink industry for more than 20 years.



COLOR PHOTOGRAPH BY ANTON BRUEHL

Anybody for a Magenta Banana?

Probably not—and you know why: A banana is supposed to be yellow; everybody knows that. *Color identifies*—positively, immediately.

More and more, thoughtful businessmen are employing this fact in planning their business printing. HOWARD BOND, in all its twelve clear, clean colors produces forms,

letterheads and other printed items instantaneously recognizable to our color-conditioned eye. Mishandling is virtually eliminated, efficiency soars while costs dip.

And instant identification is only part of the story. Color, especially HOWARD BOND's appetizing pastels, adds interest to the humdrum, lends

genuine appeal to the thousand-and-one uses everyone has for bond printing. And remember this—you get a two-color effect for the single color printing price! Through your printer or paper merchant.

PRINTERS! This message appears in advertising magazines read by your customers.

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Companion Lines: Howard Ledger • Howard Mimeograph

Howard Writing • Howard Posting Ledger

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Basis 80—Camberra finish



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We'd be pleased to send you samples of our eight finishes and two tints

Printed on Maxwell Offset—Basis 80—Camberra finish

COLOR PHOTOGRAPH BY ANTON BRUEHL



Foreign Publishers Promote Books By Offset

THE recent Chicago convention of the American Booksellers Association gave added strength to the old (and here slightly varied) saying that "Of the making of books (by offset) there is no end." However, a tour of the big book trade show at the convention produced the impression that American book publishers seem to have overlooked the possibilities for using offset as a selling point for their wares. Foreign book publishers, in striking contrast, spare no opportunity offset provides to put a punch in their sales talks for their books and for such bookstore sidelines as greeting cards and stationery.

There was plenty of offset work in the imposing displays of the several hundred participating book publishers, but the printing process used seemed to be taken for granted and was not emphasized by the representatives interviewed.

"Sure, we use offset" was a frequent response to a reporter's question, delivered often with an air which implied that it seemed like an idle question anyway. And one vivacious young lady bookseller even asked in puzzled tones, "Just what is offset?"

One possible reason for this indifference to offset for book production may be the fact that few book publishers operate their own printing facilities and consider manufacture of books as a minor side step to their main purpose of selling books.

Most obvious evidence of the utilization of offset by book publishers were the rainbow hued, dramatic illustrations on book jackets, which silently help to sell the wares of American publishers. In this use of jackets they have an advantage over foreign publishers who, as yet, do not seem to have adopted, to any extent, the added touch of book jackets in their business.

As every lithographer ought to know, however, not all book jackets are yet printed by offset. In several instances where gravure or letterpress was employed, salesmen were encountered who knew the difference

and could enthusiastically point out the superiority of the process their production manager had selected.

Juvenile books, printed all by offset, abounded in the American displays. Plentifully used, too, were full color offset inserts picturing animals, birds, flowers, and kindred nature subjects, along with fine reproductions of classic works of art. Travel books, it was observed, likewise favor scenic subjects, printed by offset from Kodachrome art work.

One large British publisher, with branches around the world, told how his company's books are printed originally by letterpress in London. Then reproduction proofs are pulled and sent to the U. S., to Australia, or elsewhere, for use by offset printers there to make inexpensive reprints of the volume in question. Many U. S. publishers of "paper backs" also use the same technique for low cost reprints of classic literature and currently popular books.

Web offset presses are being used increasingly for book production, but competition seems to have imposed a peculiar "hush, hush" attitude that impeded efforts to learn details. It seems evident, however, that publishers fully appreciate how development of high speed web offset presses is bringing book production costs down.

At the booth of The Steck Co., Austin, Tex., H. F. Teague, assistant director, spoke more freely than others. Steck has been operating an 8-color Webendorfer web offset press for several years, he said. They also have a 2-color web press of the same make and a second 2-color web press is on order, with delivery expected shortly. In addition, Mr. Teague said, the company operates a Harris 4-color, a Harris 2-color and a Mann 2-color offset press. All are continuously busy turning out a lengthy list of juvenile books, educational text books, non-fiction works of topical and historical interest and facsimile reproductions and reprints of rare volumes. E. W. Jackson, president of the 50-year-old Steck Co., is well

known to members of the Lithographers National Association, of which he is a past president.

An outstanding highlight of the Chicago trade show was a display of books and periodicals from some 20 foreign countries, including such remote regions as South Africa, Iceland, Ceylon, Pakistan, Formosa and Korea. So extensive were these displays that the Hotel Sherman's largest exhibition hall was reserved exclusively for the foreigners.

As in the U. S., 4-color offset work was much in evidence and the use of brilliant colors compared very favorably with work done here. This was especially noticeable in juvenile publications. Offset also is used abroad for inserts and for profusely illustrated books. But to an observer it appeared that some improvement might be possible in control of tonal variations and in sharpness of the image.

One German trade group had arranged a cooperative display of the products of 180 West German publishers and here the visitor learned that the printing processes do not compete against each other there.

"Our printing industry is highly specialized," said Heinz Georg Willkomm, of Munich, "and the only question is 'What process is best suited to do the job?' The printer who specializes in that process gets the order."

Herr Willkomm, himself, was representing a Munich letterpress and photoengraving firm and also a Stuttgart lithographer, Schuler's Graphische Kunstanstalt. Schuler's exhibit featured 4-color litho work with emphasis on reproduction of scientific and popular nature subjects and juveniles.

In a French exhibit, an elementary French dictionary which defined words with the help of pictures, looked oddly familiar and examination revealed that it was indeed a "Little Golden Book," lithographed in Paris by M. Dechoux, "by arrangement with Simon & Schuster and Western Printing & Lithographing Co.," as explained in the imprint.

In Japan offset has progressed so far that it now replaces the wood

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POWER-FIX is sold in 1-gallon bottles or low-cost non-return, reusable 5 gallon drums, easy to store and use. Join the host of Chemco customers who have found Power-Fix their best bath buy in terms of economy, efficiency, long life and dependable performance.

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PHOTOPRODUCTS COMPANY, INC. GLEN COVE, N. Y.

ATLANTA BOSTON CHICAGO DALLAS DETROIT NEW ORLEANS NEW YORK

block printing process, used for centuries to reproduce the paintings of famous Japanese artists. In an exhibit made by the Japan Publication Trading Co., Tokyo, a cultured Oriental gentleman, Guy Uwyma, told how the modern art of offset printing has rendered the old wood block method obsolete. Wood block printing is still done, he said, but, where multi-color work is involved, he declared that "offset is cheaper and better." Certainly in the many examples he dug up from numerous volumes, offset lithography was demonstrated as ideally suited for reproduction of the delicate tonal shadings of the well-known Japanese style of printing.

Japanese lithographers use Kodachrome art work for natural color scenic pictures; they lithograph on silk and they reproduce crayon drawings close to the original. In fact Mr. Uwyma, with a challenge in his voice, declared that few U.S. lithographers have been very successful with crayon art.

Tokyo's daily newspaper, *Asahi*, operates extensive lithographing facilities in its commercial printing subsidiary. The name of Mitsumura Offset Press of Tokyo was noted but the language barrier prevented identification of other offset firms who undoubtedly figured in production of many books shown by 41 Japanese publishers.

Incidentally, many of the largest size presses made in the U.S. are finding their way to Japan, according to Mr. Uwyma. This country supplies most of the lithographing equipment used in Japan, although Germany and Great Britain also ship litho presses there, he said.

U. S. lithographers who publish greeting cards and picture post cards seem to have overlooked the Chicago booksellers' show. Present, however, were numerous foreign publishers of these important offset products. Typical of their displays was that made by the New York representative of Hugo Christ, Vienna lithographer. "Cards for all occasions" was the slogan of this Austrian firm and they were there for every thing from Christmas to commencement day and

the advent of a baby. The war interrupted production of this company's greeting cards in foreign languages. Since 1945 this line has been resumed, a spokesman said and "motto cards" now are being lithographed for distribution in the native tongues of 12 European countries and the U. S.★

Rand McNally Takes To Air

Rand McNally & Co., century-old Chicago area company, which was turning out railroad tickets before

rails spanned the American continent, now is engaged in printing helicopter tickets. Customers include the New York Helicopter Airways, Los Angeles Helicopter Airways and most recently, Chicago Helicopter Airways.

Rand McNally takes pride in the fact that the history of transportation in the U.S. with attendant changes in social structure can be read in the tickets, maps and guide books the company has featured since its founding in 1856.

McGill Speaks To Association

Hugh T. McGill, sales promotion manager of American Type Founders Co., Inc., was the featured speaker at a recent meeting of the Hudson-Bergen (N. J.) Graphic Arts Association. The dinner meeting was held at the Hotel Plaza in Jersey City. John Bado, Sr., Terminal Printing Co., president of the Association of Printers and Lithographers, served as chairman. The evening's program, devoted to "Machinery Obsolescence and New Equipment," was arranged by program chairman Robert W. Shaw, Hudson Dispatch Printers.

In his talk, Mr. McGill outlined the recent advances made in sheet-fed and roll-fed letterpress and offset presses. "The increased speed and ease of operation of the new presses," Mr. McGill said, "is hastening the evolution of photographic composition of text matter. One of the major problems of photo mechanical composition now is being solved. No details are available at this time, but a full report may be made before the end of the year."

New Company Formed

Ideax Illuminator Company, Inc. has been organized in New York at 480 Lexington Ave. to market a line of new products in the photographic field. The company is headed by Carl M. Loeb, Jr., president, well-known in financial and industrial circles, formerly with Climax Molybdenum Co. Vice president and general manager of the new company is Stephen Herz, Jr., formerly account executive with Al Paul Lefton Co. of Philadelphia, and previously vice president and director of D. Emil Klein Co. of New York.

Colwell Acquires Plant Space

Colwell Litho Products, Inc., Minneapolis, has acquired 5,000 sq. ft. of additional manufacturing space at 316 Chicago Ave. General offices and the assembling and manufacturing of certain products will remain at 402 Chicago Ave., according to Thomas Colwell, president of the graphic arts firm.

Among the items to be made at

the new plant are a line of stripping tables, filing cabinets and exposure frames. Several new products, to be announced this fall, also will be manufactured in the new plant.

New ATF Managers

William Taylor has been appointed manager of the Chicago branch office of American Type Founders Co., Inc. He succeeds Arthur R. Bink who has been named regional manager of the Cleveland region in the Web-Fed Division.

Mr. Taylor joined ATF in 1945 as a sales representative in the Cincinnati office. Since then he has served as manager of ATF branches in Baltimore, Cleveland and Atlanta.

Henry E. Owens has been named Atlanta branch manager. The Atlanta office recently was moved to new quarters at 728 Spring St., N.W. The move is part of the general expansion program in sales and service being undertaken by ATF.

Nekoosa-Edwards Scholarships

Summer school scholarship awards have been granted to 18 Nekoosa and Port Edwards public school teachers by Nekoosa - Edwards Foundation, John E. Alexander, foundation president, announced recently. Under the terms of the teacher scholarship plan established last fall, the individual awards may cover up to 75 percent of the estimated cost, excluding travel expense, but not in excess of \$250.

NYEPA Elects Sorg President

Robert L. Sorg, executive vice president, The Sorg Printing Co., Inc., recently was elected chairman of the board of New York Employing Printers Association, Inc. at the Association's 92nd annual meeting.

A feature of the meeting was the recognition of 117 member firms who have held continuous membership for at least 25 years. In terms of size of membership (more than 900 printing firms by all processes, and their suppliers, in the New York metropolitan area), of staff, and extent of services, the Association is the largest regional trade association of any industry in the country.

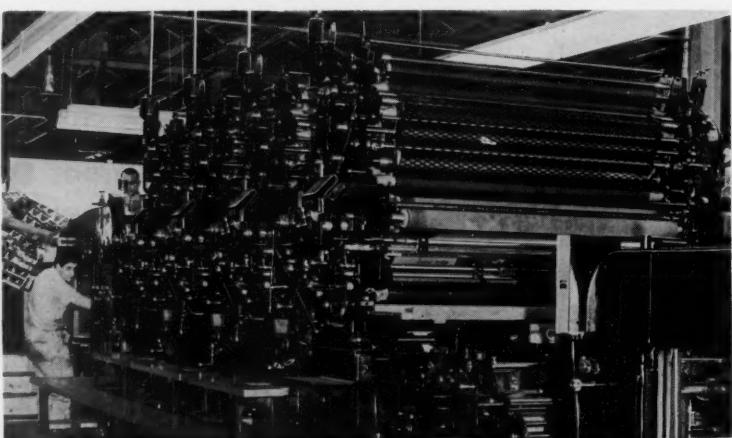
Craftsmen Elect Atherton

Clive Atherton, long an active member of the San Francisco Club of Printing House Craftsmen, has been elected president of the organization for the coming year. Mr. Atherton is composing room foreman at the Bosqui-Uniform Division of the Courier-Citizen Co., insurance form lithographers.

Cross Heads 3M Graphics

The election of Bert S. Cross as executive vice president in charge of graphic products was announced recently by Minnesota Mining & Mfg. Co. Mr. Cross, who joined Minnesota in 1926 as a laboratory technician, has been responsible for all 3M graphic products since 1953.

A recent addition to San Francisco's big label lithographing industry is this four-color Harris press, 43 x 59", which has been installed at the Louis Roesch Co. It represents an investment of \$225,000 by the 78-year old firm.



MODERN LITHOGRAPHY, July, 1957

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Pedigreed Papers

always make good printing better



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THE NORTHWEST PAPER COMPANY, Cloquet, Minnesota



NORTHWEST

Pedigreed Papers

Northwest Ultrawhite Opaque

Northwest Velopaque Text

Northwest Velopaque Cover

Mountie Text

Mountie Offset

Northwest Bond

Northwest Ledger

Northwest Mimeo Bond

Northwest Duplicator

Northwest Index Bristol

Northwest Post Card

PRINTING

PAPERS

Mountie E. F. Book

Mountie Eggshell Book

Carlton Bond

Carlton Mimeograph

Carlton Ledger

Carlton Duplicator

North Star Writing

Non-Fading Poster

Map Bond

ENVELOPE

PAPERS

Mountie

Northwest

Nortex White

Nortex Buff

Nortex Gray

Nortex Ivory

Carlton

CONVERTING

PAPERS

Papeteries

Drawing

Adding Machine

Register

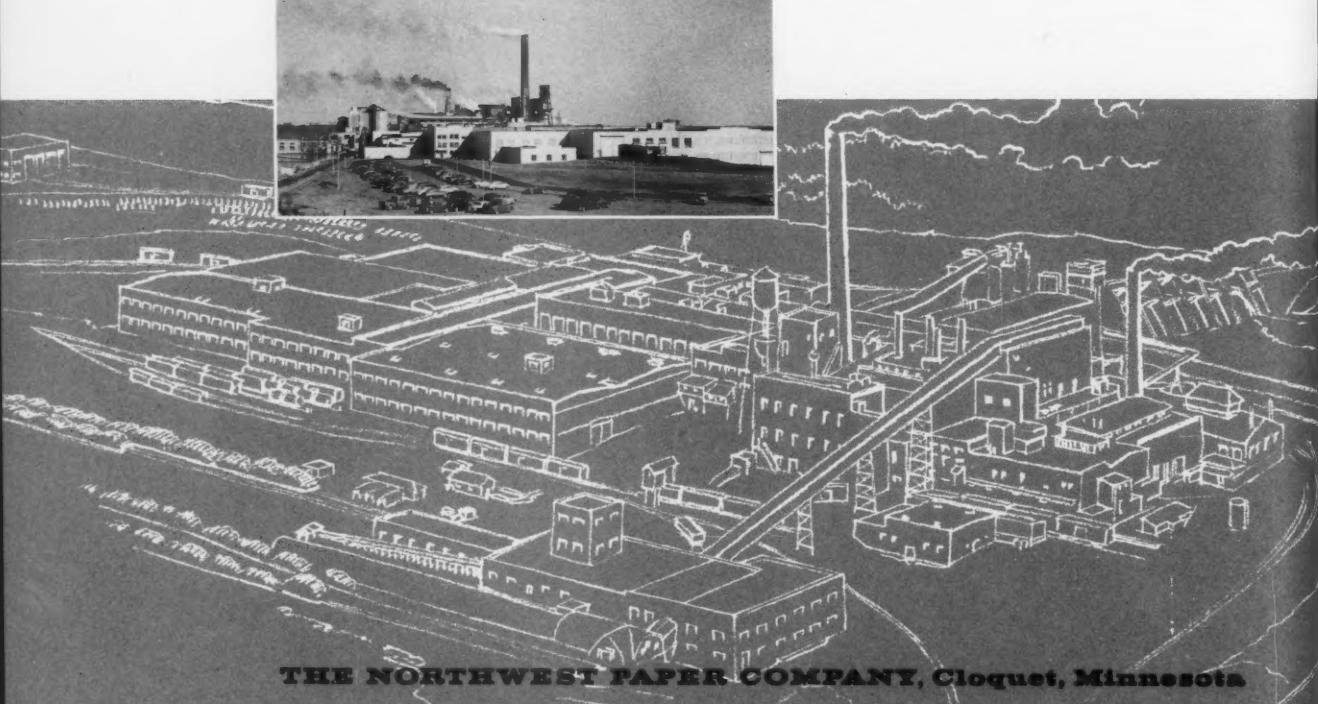
Lining

Gumming

Raw Stock

Cup Paper

Tablet

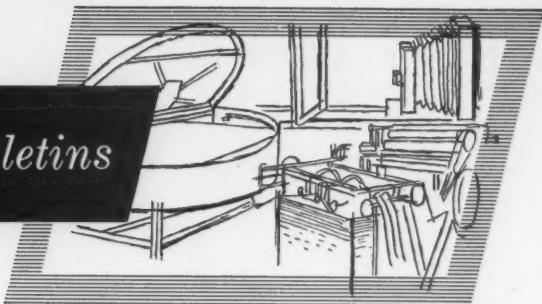


THE NORTHWEST PAPER COMPANY, Cloquet, Minnesota

Chicago 6, 20 North Wacker Drive
sales offices Minneapolis 2, Foshay Tower
St. Louis 3, Shell Building

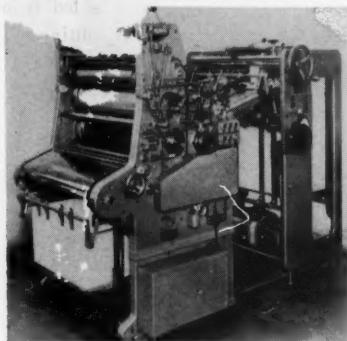
This Advertisement Produced Upon MOUNTIE OFFSET • 80 lb. Basis

Equipment, Supplies, Bulletins



Zarkin Readies New Press

Zarkin Machine Co., Inc., New York, announced last month that the appointed world-wide distributor for the Royal Zenith 23 single-color offset press, made in West Germany. This press takes a sheet 15 x 23" and is the "little brother" of another Zarkin press, the Royal Zenith 29 which takes a sheet of 23 x 30".



Royal Zenith 23

distributor for the Royal Zenith 23 single-color offset press, made in West Germany. This press takes a sheet 15 x 23" and is the "little brother" of another Zarkin press, the Royal Zenith 29 which takes a sheet of 23 x 30".

According to Jerry Reinitz, general manager of the Zarkin Co., this is the most "automated" of any comparable press on the market, using exclusive new electronic push button controls for water pressure and ink regulation instead of the conventional manual handles and thumb screws. Mr. Reinitz rates it at 9,000 impressions per hour top speed, and 7,000 I.P.H. operational speed.

A feature of the Royal Zenith 23 is the extra stripping cylinder for reverse stripping of sheets from the impression cylinder. This is especially important when running heavy solids and light weight papers and eliminates the slow-down and troubles caused by non-stripping of sheets.

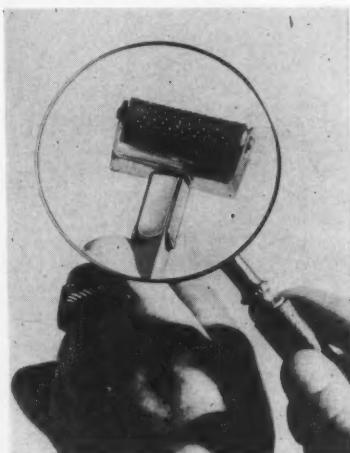
Herbert Blomquist, manager of the Zarkin Co.'s graphic arts equipment division, reports that two Royal Zen-

ith 23 presses will be installed late this month at the C. E. Sheppard Co. plant in Long Island City, N. Y. and Low's Reproduction Service in Chicago. The new press, with the larger Royal Zenith 29, was shown at the "Graphic 57" show in Switzerland.

Technical Bulletin On Ink

An 8-page technical data bulletin describing the characteristics, advantages and applications of its new "700 Series" flexographic inks has been issued by Bensing Bros. & Deeney, Philadelphia. The bulletin covers both Safe-T-Brite "S-700" and Multi-T-Brite "M-700" inks, which are described as being modern multi-purpose inks which are formulated on an entirely different solvent system than conventional alcohol inks.

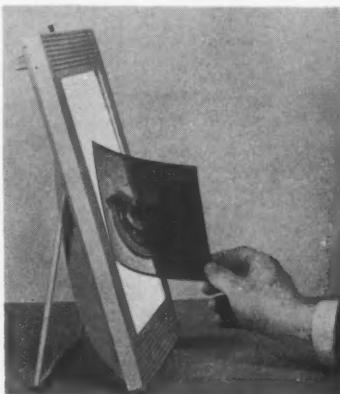
Feed Roller Developed



This improved style rubber feed roller developed by Thomas Collators Inc. makes possible the collation of paper stock of nearly all weights and finishes, from tissue, onionskin and 1-time carbon to $\frac{1}{8}$ " cardboard. The new roller, $1\frac{1}{4}$ " in circumference and molded with 150 staggered burs, assures uniform and positive contact with every sheet of paper and eliminates double sheet movement.

New Transparency Illuminator

Ideax Illuminator Co., 480 Lexington Ave., New York, recently announced the development of a new



Transparency Illuminator

transparency illuminator, the Idealite, incorporating a new reflecting system that produces even, heat-free, color-balanced illumination for transparency viewing. According to the firm, a new scientific principle makes Idealite less than 2" deep at its thickest dimension. The $13\frac{3}{4}$ " square frame incorporates a 10×10 " heavy gauge Plexiglas viewing surface. Idealite weighs less than three lbs., fits into a briefcase and uses a specially designed 8-watt fluorescent lamp.

Identification Numbers

Westline Products, a division of Western Lithographic Co., 600 E. Second St., Los Angeles, has placed on the market a brand new line of self-adhering numbers, letters and signs for industrial marking application requiring a fast, easy and economical way of marking bays, bins, columns, posts, shelves, fixtures, machinery, etc. The letters may be applied in seconds by simple pressure

W. A. Brown Issues Catalog

The W. A. Brown Manufacturing Co., Chicago, has announced the release of a new catalog featuring the complete line of all-metal, bi-rail track, Commodore cameras. Sizes 18 x 22, 24 x 24 and 31 x 31 are fully illustrated, along with scale drawings for floor space requirements.

Standard equipment includes Goerz Red Dot artar lens; vacuum film holder with film size selector valve, including pump and motor unit; blue fluorescent lights in reflectors; lamp carriers, ground glass, percentage scaling system; calculator, manual diaphragm control; automatic shutter and timer control.

Presensitized Plate

Following a year and a half of field testing its Alkote plate, Polychrome Corp., Yonkers, N. Y. is marketing it as an economy presensitized plate in the 10 x 15" size. Alkotes, available in all sizes, up to standard #2066 presses, are photo-sensitive on both sides of a .0045 aluminum base.

According to the firm, the Alkote plate will produce all line, halftone and Ben Day work with excellent fidelity. The patented surface of the Alkote plate ensures a natural water and ink balance, the company stated.

Dry Offset Reviewed

"Do More Dry Offset on the Davidson Dual-Lith" is the title of a new 4-page technical bulletin on dry offset reproduction issued by the Davidson Corp., a subsidiary of Mergenthaler Linotype Co. The bulletin enumerates the advantages of dry offset reproduction and contains complete instructions and illustrations showing how to use the Davidson Dual-Lith for this type of work.

Dry offset is one of the newer and more interesting methods of graphic reproduction. As pointed out in the bulletin, it offers several unique advantages: (a) there is no ink and water balance to maintain; (b) a dry offset plate outlasts conventional relief plates, because its inked image is transferred first to a rubber blank-

ket and then to the paper; (c) the process permits the use of a wide range of inks and stock textures.

"Work which is re-run in fairly large volume at varying intervals is well suited to dry offset reproduction," the folder states, "particularly where the total number of impressions runs into the several hundred thousands, or millions. This is especially true of work which is periodically re-run without alteration and which requires a combination of long run and consistent quality."

Booklet Describes "Rolaprinter"

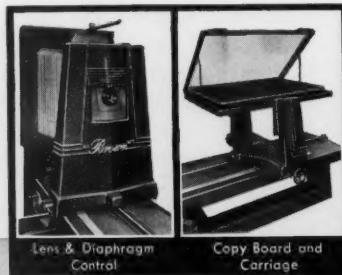
A new 4-page booklet describing the "Rolaprinter" coding and im-

printing attachment for wrapping and bundling machines has been issued by Adolph Gottscho, Inc., Hillside 5, N. J.

Illustrated with photographs and schematic drawings, the booklet shows many applications of the "Rolaprinter" attachment, ranging from placement of a small code-date on a preprinted wrapper to printing descriptive copy on five sides of a bundle overwrap.

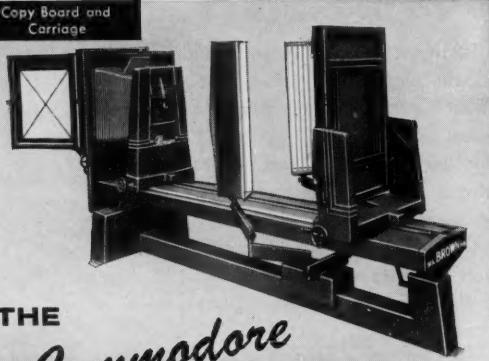
The "Rolaprinter" unit is available in various models for attachment to all makes of wrapping and bundling machines. In operation it imprints the wrapping material as it is led from the roll just prior to the cutting and wrapping operation.

COMPARE THE PERFORMANCE AND COST!



SIZES

- 18 x 22
- 24 x 24
- 31 x 31



THE

Commodore

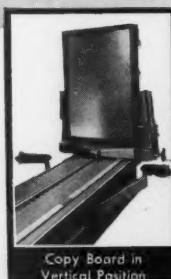
18x22" ... \$2350.00

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PRICE INCLUDES THESE FEATURES:

- 10 ft. Bi-rail track with center tube
- 24 x 36" glass covered tilting type copyboard
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- Lamp carriers and lamps
- Vacuum film holder (swing type) with film size selector valve including pump and motor unit
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W.A. BROWN MANUFACTURING COMPANY

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MODERN LITHOGRAPHY, July, 1957

Neutracel: the newest reason why Hammermill Bond prints better, types better, looks better



Printing looks better on new Hammermill Bond— now made with hardwood's finer fibers

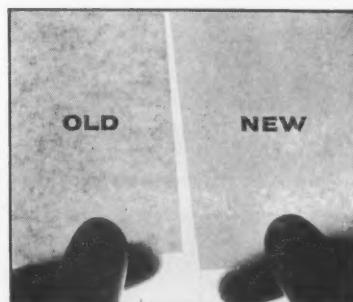
YOU CAN SEE the difference when you print on new Hammermill Bond—and so can your customers.

With a new and exclusive pulp called Neutracel®—Hammermill has unlocked the secrets of making fine paper with hardwood's finer fibers to provide a smoother, more velvety surface for clearer printing.

Take a look at a sheet of the new Hammermill Bond—or look at the photos at right. You can see the smoother formation that gives your printing a better background. It's blending Neutracel with other quality pulps that knits all the fibers together more closely.

When the job calls for watermarked bond, be sure to use Hammermill Bond with Neutracel. It makes good printing look better, letterpress or offset. And, Neutracel lends added opacity to minimize show-through when you're printing on both sides of the sheet . . . adds extra bulk to give printing more snap and quality-denoting "heavy feel."

Ask your Hammermill salesman to show you samples of the improved Hammermill Bond and other Neutracel-content Hammermill papers. Hammermill Paper Company, Erie, Pennsylvania.



...yet
HAMMERMILL BOND
with Neutracel's finer fibers, costs no more

Sun Markets "Little Benjy"

Sun Supply Co., New York, a division of Sun Chemical Corp., has been appointed one of the distributors for "Little Benjy," a deep etch plastic lacquer manufactured by Knox Soap Co., Chicago. "Little Benjy" is a self-leveling lacquer that spreads smoothly, has a strong affinity for ink, plus unique gum and water repellent properties.

According to Sun, the lacquer has tremendous bonding strength and produces an extremely flexible film that is rated 10-20 times stronger than most vinyl and cellulose lacquers.

Challenge Issues Booklet

The Challenge Machinery Co. has issued a new 8-page booklet covering Challenge precision proof presses and their advantages for printers, typographers and engravers. Six important applications of these proof presses for printers are described in the booklet. They include reproduction proofing and the direct image proofing of offset or duplicator plates.

Also included is a comparison

chart on five leading models showing a comparison of features and a detailed description of 11 important operating features.

Re-Design Pile Inserter

New methods for inserting materials with its combination pile inserter have been announced by The W. O. Kickok Mfg. Co., Harrisburg, Pa. According to the firm, design improvements now make it possible to automatically insert paper, blotters or board between any desired number of sheets of paper from a minimum of four up to 125 or more sheets. For inserting paper smoothly and efficiently, suction is used. For inserting board or blotters, which frequently have uneven or warped surfaces, a rubber push finger is used.

Amber Polyethylene Bottles

Amber polyethylene bottles that protect photographic chemical solutions and powders from light damage have been introduced by the Clayton Chemical Co., Chicago. The

amber color is sufficiently dark to assure complete light protection and still allow the user to ascertain the level of the contents, the company said.

Although polyethylene bottles in amber color are new, polyethylene products are not strangers to the laboratory. These amber polyethylene bottles, in addition to being unbreakable, light weight and chemically inert, also protect the contents from light damage.

Haloid Completes Color Movie

Completion of a 16 mm, 15-minute sound movie in color on "Speeding the Distribution of Engineering Drawings by Xerography" has been announced by The Haloid Co.

The film depicts the use of XeroX® Model 1218 copying equipment at IBM, Ford, Chrysler, and Glenn L. Martin in the xerographic reduction of outsize engineering drawings up to 24 by 36 inches to convenient 12 by 18-inch proportions on offset paper masters from which multiple copies are then run off.

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ARTAR-IZE!

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The Lens for the Graphic Arts

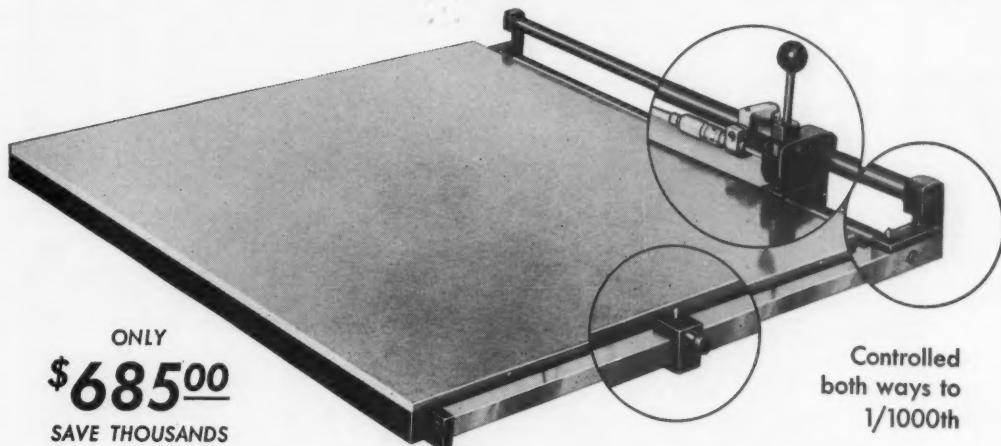
Whether it's color or black and white, your camera is only as good as the lens in front of it. That's why leading Graphic Arts camera manufacturers recommend and use GOERZ RED-DOT ARTAR Lenses. ARTAR-IZE your camera for quality production... keep up with your competition!

Consult us on special lens requirements.

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Controlled Accuracy



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\$685.00
SAVE THOUSANDS

Controlled
both ways to
1/1000th

THE CARLSON PHOTO-COMPOSING SPACER.

SPACER. Accurate to 1/1000th, this Carlson Photo-Composing Spacer does the work of machines costing thousands in stepping multiple negatives or on plates. Utilizing this proven, accurate punch-and-hole system with micrometer control, the Carlson Spacer operates at 4-times the speed of hand stepping—while maintaining perfect dot-for-dot register. Write for full details.

THE CARLSON STEP-AND-REPEAT PUNCH

This is practical equipment for the smaller lithographer. Although this is a fine precision-made, all-steel punch which steps with hair-line accuracy, it costs only a few dollars. The Carlson Punch utilizes our proven punch-and-hole system. It provides lock screw setting of three point optical finder, 24" etched stainless steel rule and self-aligning throat-stop for controlled accuracy with Carlson Master Strips. Write for details.

ONLY
\$79.50



NOTE: Any time within 18 months after purchasing a Carlson Step-and-Repeat Punch, you may trade it in at full price on a Carlson Photo-Composing Spacer.

Chesley F. Carlson Company

BEN FRANKLIN BUILDING • MINNEAPOLIS 15, MINNESOTA

A \$10 Purchase Resulted In \$600,000 Volume

IN 1915, when the late Nathan Fox was selling printing for a man who is remembered today only by the name of Tulin, he was offered Tulin's printing business for a \$10 bill. Mr. Fox accepted the offer and a new business, the Fox Printing Co. was launched in Goodman Pl., Hartford, Conn.

A partnership was formed as Simon Rosenthal entered the business. The two-man shop carried on its operations for years in an uneventful manner, the name of the firm having

been changed meanwhile to Fox Press. It was in the 1930's that a startling innovation was made. Expressing confidence in a great future for offset, Nathan Fox dared to make the plunge. A pioneer in lithography in the Hartford area, he set up complete offset equipment which had been purchased from American Type Founders.

At the time of his death in 1944, Fox Press was a 12-man shop with 5,000 sq. ft. of floor space and an annual business volume of \$75,000.

Mr. Rosenthal left the firm shortly after Mr. Fox's death. Today, 42 years later, the combination shop has an annual volume of approximately \$600,000, representing an 800 percent increase in the last 10 years.

During those past 10 years, all new equipment has been purchased, including four Webendorfer Chiefs, platemaking and camera equipment in the offset department; two Harris-Seybold cutters, a Cleveland folder, one Baumfolder, a Rosback automatic stitcher; mat making equipment; and automatic drilling and perforating equipment.

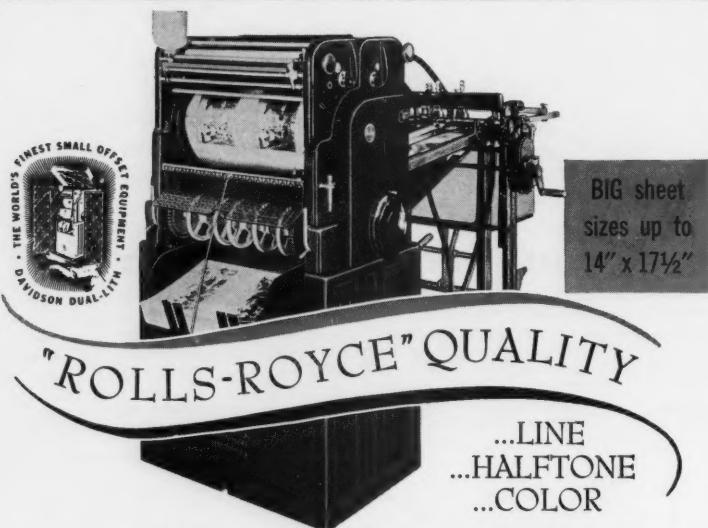
Fox Press, Inc., presently is located at 206 State St., Hartford, but by this fall expects to be located in its new 14,000 sq. ft. plant in the North Meadows industrial section of Hartford. The State St. operation is scattered over four floors, but this condition will be remedied when the firm moves into its new one-story plant.

The Fox Press trademark shows the outline of a building containing the words, "Lithography, Letterpress, Typography, Mat-Making, Creative Help," underlined by the slogan, "Under One Roof." Saul Weber, Fox's president, summed up the teamwork by explaining how the new plant was planned.

"The reason that our new home will be one of the best planned printing facilities in New England is simple. The people who are responsible for our day-to-day operations are the same people who planned the layout of the new plant. Our foremen, together with Lee Cooperman, vice president; William Rupp, secretary-treasurer; and myself, had many an interesting hassle in those planning meetings, but believe me, when we got through we had a layout which is second to none."

The team philosophy at Fox Press is not limited to such special projects as planning a new plant. This is evidenced by the fact that Fox does not have a production manager as such. The foremen are the key men. Each is a well-seasoned specialist in a key spot.

Mr. Weber is a real advocate of



Quality is the hallmark of Davidson Dual-Lith Model 233. This fine offset machine produces craftsmanlike offset worthy of the best traditions of the platemaking and lithographic arts. It's evident in every printed sheet—the clean, sharp line work, sparkling halftones, delicate vignettes and brilliant multicolor reproduction in perfect register!

Precision is built into the Model 233—that's why it appeals to operators of limited and long experience alike. And Davidson's exclusive 2-Cylinder Principle provides 8 printing processes: simultaneous two-sided lithography, Davengraving, offset lithography, dry offset, letterpress, imprinting, numbering and perforating!

**DAVIDSON
DUAL-LITH
233**

Text set in Linotype • Headings in ProType

DAVIDSON CORPORATION
A Subsidiary of Mergenthaler Linotype Company
29 EVERSON STREET, BROOKLYN 5, NEW YORK
Distributors in all principal cities and Canada

Send Model 233 literature ML 7-7

Name _____

Street _____

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City _____ Zone _____ State _____

Today's outstanding paper value!

DOUBLE COATED

Consolidated Offset Enamels at No Extra Cost!

Talk about value! Now Consolidated gives you the added performance features of double coated offset *at no added cost*. High stability . . . quick ink setting . . . superior pick resistance . . . maximum uniformity . . . brighter color . . . all the advantages you get *only* with double coating are yours for not a penny more with high quality, low cost Consolidated Offset Enamels!

What's more, you get these advantages in every grade — PRODUCTOLITH, CONSOLITH GLOSS and CONSOLITH OPAQUE. All are double coated on both sides in one continuous high-speed operation — *right on the papermaking machine!* There are no extra manufacturing steps — no extra cost.

'FREE TRIAL SHEETS! Next time you're running a job, ask your Consolidated merchant for free trial sheets. Then compare performance, results and cost with the offset paper you're now using. Once you see the difference, you'll agree double coated Consolidated Offset Enamels are today's outstanding paper values!



Consolidated

ENAMEL PRINTING PAPERS
a complete line for lithographic and letterpress printing

CONSOLIDATED WATER POWER AND PAPER COMPANY
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cost estimating and the checking of actual costs against the estimated prices. Mr. Rupp, a veteran printer who learned his trade in Germany 46 years ago, bears the responsibility for cost accounting. Mr. Weber says "Rupp is the man who maintains those all important records which enable us to set an equitable selling price and produce a fair profit."

Mr. Weber also pointed out that the firm has made full use of production experts at every stage of quality-control efforts. "Buying the best possible know-how at \$100 a day has been an excellent investment in our plant," he asserted. "I highly recommend the use of such experts to review a company's work system." ★

Buckbee-Mears Elects

Buckbee Mears Co., St. Paul, announced last month new executive appointments and the development of a new division, the etched metal abrasive division.

New president of the company is Norman B. Mears; Norman C. Mears is vice president; Allen W. Buckbee, secretary and E. E. Mears, treasurer. John C. Bryant continues as vice president.

Contest Awaits Winners

Winners in the 1957 "Wonderful Week End" in Wisconsin contest, sponsored by Whiting Plover Paper Co., Stevens Point, Wis., will be announced next month, the company

stated. An all expenses paid vacation awaits 24 printers and salesmen who will be chosen winners in the annual national letterhead competition.

Consolidated Wage Settlement

A joint labor agreement between Consolidated Water Power & Paper Co., Consoweld Corp. and four affiliated unions representing 2,080 production and maintenance workers was signed recently at Wisconsin Rapids. The agreement provides for a five percent general wage increase retroactive to May 1, 1957.

Sweeney Heads S&V Dept.

Charles Sweeney, director of Sinclair & Valentine Co.'s Resin-Vehicle Dept., has been named supervisor of S&V's New York Screen Process Dept. Mr. Sweeney has been with S&V for 10 years, serving in the company's laboratories. The new appointment is in addition to Mr. Sweeney's other post.

Print Grade Chart

A "Standard Print Grade Chart" that enables photographers and their clients to "talk the same language" in discussing degrees of lightness or darkness as well as the contrast of a photographic print has been issued by the Photographers' Association of America, Inc. The chart, which bears actual photographic prints as a guide, allows photography users to specify a print's value in a way which could not be misunderstood. It also helps photographers describe a print without becoming too technical.

New Kodak Storage Tanks

Plastic chemical storage tanks that are claimed to be unaffected by any photographic solution, have been announced by Eastman Kodak Co. Made of Kodak Tenite Polyethylene, the new tanks may be used for a variety of purposes in the mixing and storing of chemical solutions.

SECURITY LITHOGRAPH Co., San Francisco, is installing a 50" Klimsch auto-focus camera.

DISPOSABLE "DIS-COVER"*
easy as putting on stockings

The DIS-COVER is designed to collect the press ink which causes frequent changing of expensive molletons or turkish towel type dampening materials. With a DIS-COVER, molletons have run up to thirty weeks without washing or replacing.

DIS-COVER is easy to apply. Five minutes to slip on the roller
DIS-COVER makes color changes easy. A new, clean cover costs less than washing a roller.
DIS-COVER prevents molleton lint from reaching the plate. Lint free.
DIS-COVER means less water — less ink emulsification—greater color brilliancy.
DIS-COVER's millions of tiny pores deliver moisture evenly, regardless of the Dis-Cover's surface condition.

AVAILABLE IN "PRE-CUT" SIZES, WITH DRAW CORDS, FROM DUPLICATOR THROUGH THE LARGEST 76" LITHO PRESS

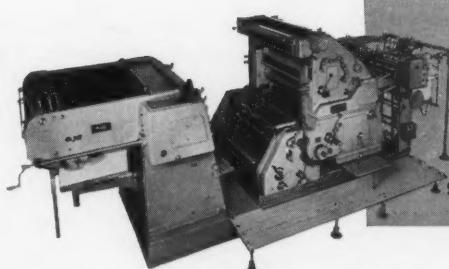
Write today for full information and prices

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VAN SON
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CORPORATION OF AMERICA
MINEOLA, NEW YORK
SOLD COAST TO COAST BY LEADING SUPPLIERS

BLEEDS A FULL

25x38 sheet

AT SPEEDS UP TO 7000 PER HOUR!



The **Miehle**



38 OFFSET
single color and two color

If you're getting a lot of jobs which are 6x9" or 8½x11" multiples, the *Miehle 38 Offset* will handle both more economically and at a high rate of production.

Both presses—the Single Color and the Two Color—bleed a full 25x38" sheet.

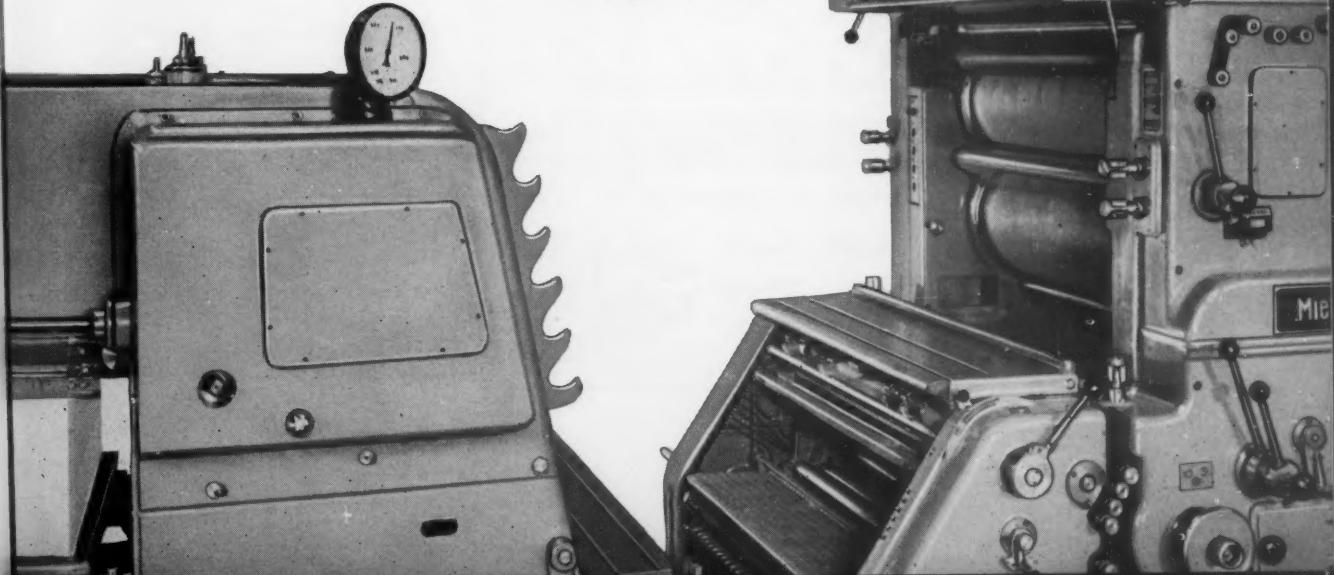
Both operate at speeds up to 7000 sheets per hour.

This alone accounts for the tremendous acceptance of the Miehle 38 Offset...the ideal press for the combination plant. Today plants all over the country are realizing its many advantages: low, compact design for ease of operation—true rolling cylinders for accurate print length—and massive construction for dependability.

See the Miehle 38, the medium size offset press that will make profits for you.

Write or call and we will arrange a demonstration near you.

MIEHLE PRINTING PRESS AND MFG. CO.
Division of Miehle-Goss-Dexter, Inc.
Chicago 8, Illinois



New Howard Flint Ink Factory at Kansas City

Kansas City now has the nation's 15th factory of The Howard Flint Inc Co. Located at 2501 Southwest Blvd., this new plant of 21,000 sq. ft. is served by a private siding of the Frisco Railroad. The newest modern mills, blenders and mixers have been installed to manufacture all grades of inks including flexographic and newspaper black and colors. R. Boyd Thompson, manager of this new Flint property previously, managed the Kansas City plant of the Chas. E. Johnson Ink Co. for 30 years.



Introducing ★ TRU-DAMP ★ A REVOLUTIONARY NEW DAMPENER THAT REQUIRES NO COVER



BINGHAM BROTHERS COMPANY soon will have available a Dampener Roller that will greatly simplify your press problems.

NO COVER TO CHANGE—CONSIDERABLE SAVINGS IN



NO RE-SETTING
NO WRAPPING
NO SEWING
NO TWISTING
NO LINT OR FUZZ
NO PAPER to BUY, NO
COTTON, NO MOLLETON



TIME
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LABOR
STORAGE

All our Rollers give sharp uniform impressions that are a delight to the eye.

Good Rollers Create Good Impressions

BINGHAM BROTHERS COMPANY

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Jersey City Philadelphia Rochester
Cambridge Baltimore Garwood
Springfield New Haven Richmond



Improved Chief 24 Press

Faster get-away time and simplified operation are the principal advantages offered by the new "Model 1200" Chief 24 offset press distributed by American Type Founders Co., Inc., Elizabeth, N.J. Sheet size range is from 8 x 10" to 17 3/4 x 24 1/2", and up to 18 x 24 1/2" under some conditions. Papers handled range from 9 lb. onionskin to 6 ply card (to 70 lb. book in the 18 x 24 1/2" size.)

Among the features to be found in the new model are adjustable controls having numbered scales for quick resetting of ink, water, and impression adjustments. The operator may return immediately to the proper setting for the job being run, without guesswork. All controls are identified, for ease of operation and instruction. Gears, revolving shafts, rollers and oil lines are covered for safer operation, but covers may be removed quickly for repairs or adjustments. A Bijur automatic oiling system provides sufficient lubrication.

Diazoprinter Announced

Tecnifax Corp. of Holyoke, Mass., manufacturer of diazotype reproduction materials and equipment, has announced a new high output, ammonia-developing diazotype printer with electronically controlled speeds up to 125 ft. per minute. The new machine is called the Tecnofax Hi-Q Diazoprocessor and is designed to meet the requirements of high-volume users of diazoprints.

Reports On Gum Arabic

Laboratory reports A-820-G2 and A-820-G3, which contain informative data on the preparation of clear solutions from various types of gum arabic, are available from Morningstar, Nicol, Inc., 41 E. 42nd St., New York. These data sheets supplement a technical service bulletin on the general subject of gum arabic, its uses and properties.

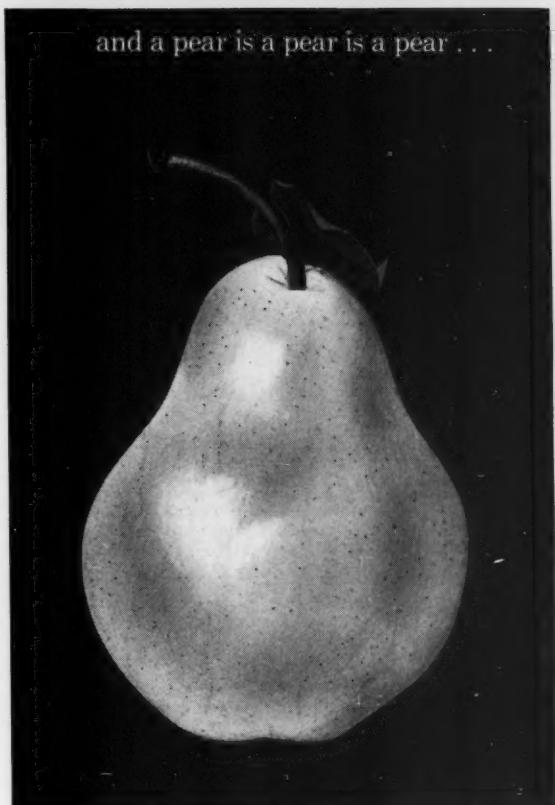
WETZEL BROTHERS, creative printers and lithographers of Milwaukee, recently announced the new location of its general offices and plant at 112 North Broadway, Milwaukee.



a rose is a rose is a rose . . .



and a broccoli is a broccoli is a broccoli . . .



and a pear is a pear is a pear . . .

when you print on

Trojan 3D Gummed Paper

- *More faithful reproduction*
- *Greater range of flatness*
- *Faster feeding and delivery*

DEVELOPED exclusively for the entire Trojan line, 3D is the most exciting new processing method in many years. Trojan 3D* Gummed Papers feed, deliver and jog more quickly; they have a wider range of flatness; they take ink exceptionally well and will give a better-looking finished printed piece every time. One trial run should convince you. For free sheet samples plus full color reproductions of the illustrations in this advertisement, write Dept. ML-757, today.

* Patent applied for

**The
Gummed Products
Company**

Troy, Ohio • Subsidiary of St. Regis Paper Company



Book Review

MODERNE CHEMIGRAPHIE IN THEORIE UND PRAXIS, A. F. Gygax, Polygraph Verlag GMBH, Frankfurt am Main, Germany, 8½ x 12, 580 pages. Approximately \$20.

Reviewed by Herbert P. Paschel ..

It is a pity that we Americans are not more proficient in languages. This shortcoming denies us the opportunity to read and profit from many foreign language technical publications. A case in point is *Moderne Chemigraphie*, the recent work of A. F. Gygax, of Bern, Switzerland. This comprehensive effort, in German, is concerned with the art and technique of photoengraving and treats the subject's past, present and future. The detailed treatment is based partly on an intensive survey of the photoengraving industry throughout the world by the author, partly on his personal experiences as a competent and practising photoengraver, and by a thorough study of trade literature. The result is an up-to-date, authoritative and profusely illustrated book.

The reader is introduced to the

subject by means of an interesting chapter on the historical development of photoengraving. The second chapter is devoted to a discussion of the fundamentals of chemistry, physics, electricity and the like, as a primer to a fuller understanding of the methods, processes, materials and machines employed in the industry. Chapters three and four discuss camera equipment, control instruments, photographic theory and practice and materials. Stripping, plate-coatings and metals, etching methods, etching machines and other items related to platemaking are covered.

Considerable space and wordage is allocated to the subject of color reproduction. Color theory, reproduction practice, color correction by masking, characteristics of inks, etc., are treated in great detail. Remaining chapters are concerned with such diverse operations as makeready, matrix making, stereotyping, proofing, retouching, miscellaneous photographic processes and a discussion of plant organization.

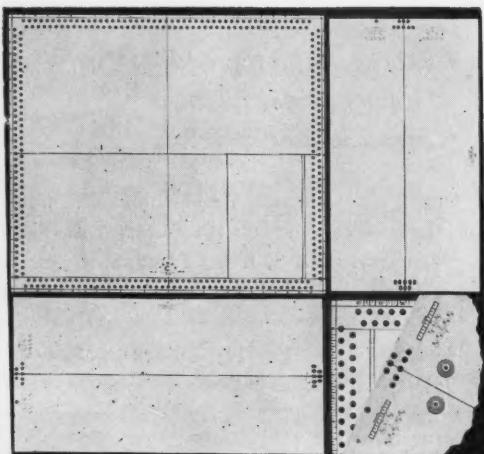
In view of the loss of many years

of technical progress and literature in Europe, as a result of the war, it is not surprising to find that the author drew heavily on American techniques and literature. This reviewer recognized, with surprise and pride, several of his own writings as the source material for parts of this book. The author failed to give credit to this writer although a bibliography of source material is included. Despite such omissions, this reviewer heartily recommends *Moderne Chemigraphie* to those who can read German and desire a definitive volume on photo-engraving in their library. For German speaking lithographers, the chapters on camera operation and color reproduction may have enough value to justify the cost.

Trade Service Established

A new negative and plate-making service for the trade has been established in San Francisco by the American Picture Co. at 330 Jackson St. The firm, owned by Jack LaDieu, will continue to operate a photography business in Los Angeles.

A Completely Automatic Step & Repeat Process



Patent Pending

A new STEP & REPEAT process consisting of a highly precisioned drilled plastic board, masking sheets and easy-to-attach plugs, all engineered for accuracy and speed. All steps prefigured to movements of 1/16". It is absolutely accurate in registering color to color in step & repeat work.

- A step and repeat machine that can be set up easily, quickly.
- Unbelievably simple for the layout man and plate-maker to operate.
- Step masking sheets are a permanent file for future stepping reruns. No guessing, just register to step board and make plate.
- Completely automatic, even in double and triple exposures, to make more than one up on plates or negatives.
- Not a gadget but a real lithographic tool. Every layout man will appreciate its effectiveness.

The Raden C Auto Step

423 Sandusky Street

Kansas City, Kansas

THE DUAL FUNCTION MOTOR

advances the carbons, strikes the arc, establishes correct gap length,
and feeds the carbons so as to maintain the proper gap.

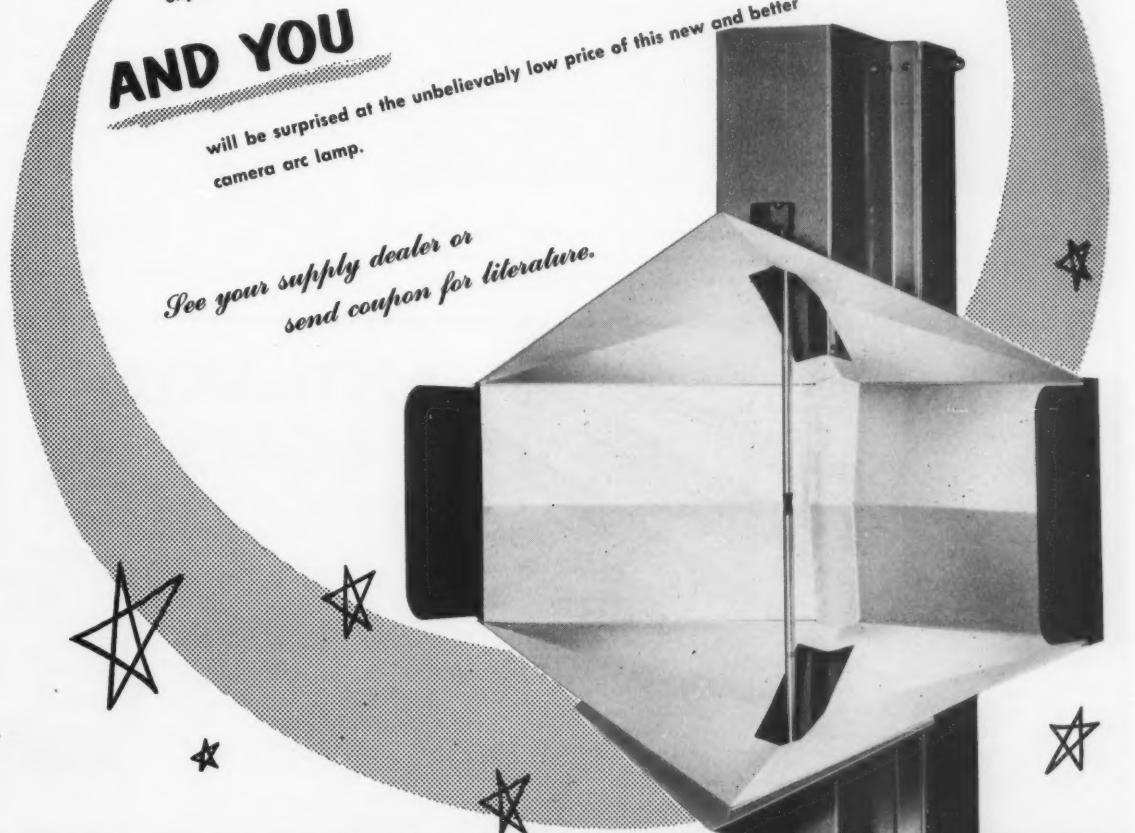
THE GRAFARC CHALLENGER

in 2 models (75 and 110 ampere high intensity) gives you accurate
exposures of as short as five seconds.

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will be surprised at the unbelievably low price of this new and better
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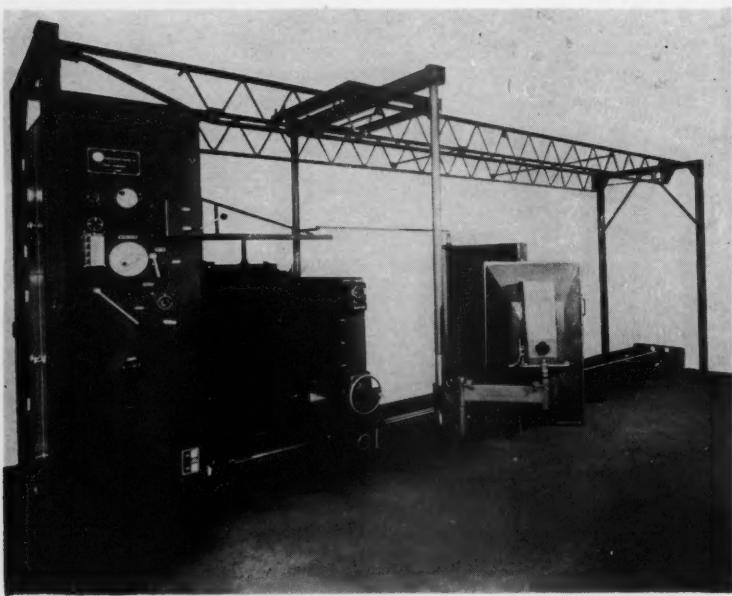
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Chemco Photoproducts Introduces Color Camera



Chemco's new camera holds transparencies up to 24 x 28" in its copyboard transparency holder. The motor driven rotation of the entire transparency holder for truing-up and superimposing is controlled from the darkroom.

Chemco Photoproducts Co., Inc., Glen Cove, N. Y., has announced the development and introduction of its new all-purpose Chemco 1210 Color Camera which, according to the company, gives outstanding precision in color, and high speed production performance in black and white.

The camera has been designed and engineered with the platemaker in mind and is suitable for R.O.P. color. One of the special features of the camera is a special four-roll magazine for holding various sized films up to 30" wide. Also provided is a new vacuum back with automatic film size compensator which holds roll and cut sheet film. All film controls, including the cutting knife, are located on the right side of the camera.

Circular or rectangular screens may be used and when not in use, the two screen carriers are stored

A
HANCO
PRODUCT



ANTI-SKIN BOMB



Use it on . . .
ROLLERS . . . FOUNTAINS
PLATENS . . . INK IN CANS

Prevents ink drying during press changes, lunch periods and overnight. Eliminates costly wash-ups due to drying and skinning. Saves ink and time! Sprayed onto surface of ink in cans, it prevents skinning and waste.

Packaged under pressure, Hanco Anti-Skin Bomb sprays a fine mist exactly where you want it. Will not affect the color, drying, viscosity or quality of the print job in any way.

A. E. HANDSCHY CO.

Manufacturers of Fine Letterpress and Offset Printing Inks & Supplies

DISTRIBUTORS in All Principal Cities. Write for Address of Distributor nearest you.

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INDIANAPOLIS MILWAUKEE
MINNEAPOLIS CLEVELAND

When a quantity job is desired and economy required, MANIFEST BOND satisfies the strictest demands . . . for it provides the same "feel" and appearance as more expensive sheets.

The moisture content of MANIFEST BOND is controlled electronically during the paper-making process . . . assuring that every sheet has just the right amount of moisture. This in turn reduces static electricity . . . making for smoother performance in all printing processes.

MANIFEST BOND'S greater bulk — exceptional

in an economy sheet — not only reduces make-ready time, but results in smoother impressions . . . producing a better-looking job throughout the run.

Surface-sized for better "erasability," MANIFEST BOND comes in six striking colors and a new, brighter, whiter white.

Find out for yourself why MANIFEST BOND is the economy leader . . . and how it can lead your business to greater savings. Ask your Eastern Corporation Merchant for a free sample packet today.

wherever economy counts
first in business

Manifest Bond is 1st choice

in economy
bonds



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FINE PAPERS

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MANIFEST BOND
MANIFEST DUPLICATOR
MANIFEST MIMED
MANIFEST LEDGER

in a compartment at the left of the camera box. Screen mechanism movements also are controlled from the right side.

Chemco has incorporated into its new camera a completely removable lensboard which makes the electric shutter, glass screen compensator, lens-drive motors and all mechanisms on the lensboard easily-accessible. The motor driven lensboard can move 4" vertically and 4" horizontally to position the lens as desired.

New Kimberly-Clark Paper

Kimberly Opaque, a new grade of printing paper will be added to the existing line of papers of Kimberly-Clark Corp., Neenah, Wis. beginning August 1, according to W. B. Meyer, national sales manager of the firm's Writing Paper Division.

The new sheet is an uncoated grade specially sized for lithography but also well suited to many kinds of letterpress printing. Kimberly Opaque will be available in 40, 50 and 70-lb. basis weights and in vellum or English finish.

Sun Names New General Mgr.

Sun Chemical Corp. announced late last month that Weldon R. Coate has been appointed general manager of its General Printing Ink Co.'s midwest division. He succeeds Harold A. Kernal, a vice president of Sun Chemical, who is retiring.

Mr. Coate will be responsible for the manufacturing and sales of all printing inks produced at GPI branches in Chicago, Kalamazoo, Mich.; St. Paul, Milwaukee, Kansas City and St. Louis. His headquarters are at GPI's plant in Clearing, Ill.

New Siebold Blanket

J. H. & G. B. Siebold, Inc., New York, has added a new Green blanket to its line of lithographic supplies. This Green blanket, added to the firm's Silver and Red, now gives lithographers a choice of three different type blankets.

New Fountain Solution

A new fountain solution concentrate, formulated for use with presensitized plates, has been marketed

by Minnesota Mining & Mfg. Co. Called "3M" brand Fountain Solution Concentrate, it is designed as a companion product for 3M's grainless aluminum plates. One gallon of the concentrate, when mixed with water and gum arabic, will produce 128 gallons of fountain solution.

EDWARD A. YOUNG, secretary-treasurer of Young & Klein, Inc., Cincinnati, returned recently from a five-week tour of Europe, during which he spent several days at the International Exposition of Printing Industries and Allied Trades in Lausanne, Switzerland.

ML

LAWRENCE BROWNING of Covington, Ky., is a new salesman for Advance Litho Plate Co., Cincinnati.

ML

MERCURY Lithoplate Graining Service Corp., litho plating, printers and publishers, Bronx, N. Y., has been granted a charter of incorporation listing capital stock of 200 shares, no par value.

SERVICE PLUS QUALITY! HAS MADE OUR PLANT THE WORLD'S FINEST

Specializing in
very fine grains for color
and process work.



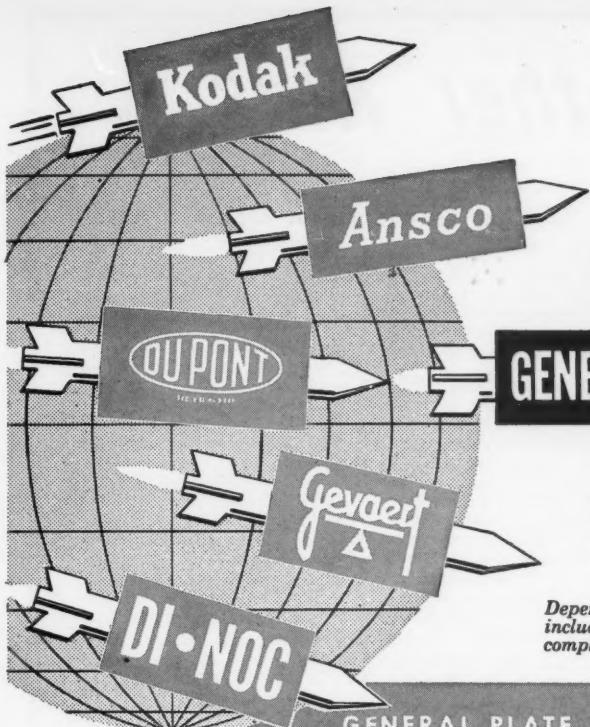
All Sizes ZINC and
ALUMINUM PLATES
Ungrained-Grained-Regrained

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By William J. Stevens and John McKinvan

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POSTPAID \$5.25

Color Chart for Dot Etching

This chart, composed of four sheets, is 22½ x 26½", and is bound at the top with a metal strip for wall hanging. The first sheet is magenta, cyan blue, process yellow and black. The second is warm red, cyan blue, process yellow and black. Number three is magenta, warm blue, process yellow and black, while the last is warm blue, warm red process yellow and black.

Each of the four pages contains 215 color squares. Each square of color is identified, and each square is divided into four different percentage screen tints. It was produced on regular offset stock on a two-color offset press.

COMPLETE FOUR-PAGE WALL CHART — \$10

"The Single Color Offset Press"

By I. H. Sayre

Different types of offset presses are detailed; then the step by step mechanical operation and adjustments of four Harris-Seybold Co. presses — the earlier sheet-fed LSB and LSN, and the newer models with selective stream and sheet feeding, LTV (17 x 22) and LTW (21 x 28). Webendorfer presses (Chief, Little Chief and Big Chief) are discussed with complete instruction for operation, followed by a discussion of the larger presses — the EBCO (Miller Printing Machinery Co.) and the Miehle 29 and Miehle 36.

The book points up the general similarity of handling of the various presses, at the same time explaining the special characteristics of each. Primary objective of the book is to acquaint the reader with the precision and care that is required in handling offset presses, and to demonstrate how to obtain trouble-free operation.

In addition to the specific treatment on presses, there is a section on blankets, papers, inks, rollers, plates, fountain solutions, and other materials used by offset lithography.

The book is cloth bound in bright red, washable cover, 255 illustrations, printed on offset enamel stock, and sewed in 16" so that it lays open flat. \$6.50 plus postage.

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First complete book covering the subject. Contains visuals of all kinds of displays, with a complete construction plan for each one shown. There are 226 blueprints, coded and self-explanatory. Discussion covers dummies, instruction sheets, cartons, packing and shipping. Another section covers items such as motors, flashers, rivets, hooks, rubber bands and other fasteners and devices.

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Street

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Hantscho V.P. Injured

E. G. Ryan, vice president in charge of sales for the George Hantscho Co., Inc., Mt. Vernon, N. Y.



E. G. Ryan

and president of E. G. Ryan and Co., Chicago, sustained injuries in an automobile collision recently which took the life of his long time friend, Paul Nahmens. Mr. Nahmens was midwest representative for Craftsman Lineup Tables. Mr. Ryan is still recovering from rib fractures and contusions but expects to resume his business activities in the very near future.

Thro Retires at Collins

Roland Thro has retired as president of the H. S. Collins Printing Co. but will remain with the company for the next two years in a selling capacity. Richard J. Dammkoehler succeeds Mr. Thro as president.

WILSON JONES CO., manufacturers of business forms, reported a slight increase in sales but a sharp drop in profits for the six months ended April 30. Sales totaled \$8,794,000, compared to \$8,497,000 for the same period a year ago.

ML

ARVEY CORP., Jersey City, recently named John W. Locke as sales administrator for its point-of-purchase advertising display materials.

ML

GRAPHIC ARTS SALES CLUB of Baltimore will conduct its 6th annual banquet and dance July 12 at Green Spring Inn.

THREE-COLOR

(Continued from Page 33)

colleges, so check with the schools first for a color course. (See list of litho schools, page 10)

In addition varied literature will be of some help in learning color. The more important references are listed below:

PRINCIPLES OF COLOR PHOTOGRAPHY — Evans, Hanson and Brewer. A very complete book on the theory behind color photography. Recommended for the serious worker in color. It is technical and may be considered as a textbook on color theory.

PHOTO LAB INDEX — Morgan and Lester. General reference book on photography in general.

KODACHROME AND EKTACHROME — Bond. General reference book.

KODAK COLOR HANDBOOK — Handbook on various phases of color photography.

COLOUR PRINTS — Coote. Reference book on the making of all types of color prints. Helpful because of its general references to separation work.

SENSITOMETRY — Lobel and Dubois. Excellent reference book on this important subject.

TONE AND COLOR CORRECTING — Halpern (LTF). Recent publication covering color correction from all angles.

INTRODUCTION TO COLOR — Evans. Considered by many as the basic technical book covering the theoretical aspects of color. Recommended for the serious worker.

ANNUAL PROCEEDINGS OF THE TECHNICAL ASSOCIATION OF THE GRAPHIC ARTS (TAGA). Proceedings of the first through ninth annual meetings. Each of these publications contains some important information on the subject of color. Highly recommended for the serious worker.

Conclusion

Color isn't off in the future. It is here right now and sooner or later you will be in it too. Each day brings the lithographic industry closer to the point of complete color, for with color television, product marketing



IDEA NO. 108

A "Natural" for 7-UP

Chicago's 7-UP BOTTLING CO. found that for holding displays of vacuum-formed plastic and other heavy materials, "nothing does it" like KLEEN-STIK's newest creation — DUBL-STIK! With counter space in soft drink outlets at a premium, Ad Mgr. PHIL SCHAAK created the unique 3-D acetate display for use on walls and backbars. Huddling with BILL HUTCHESON of HUTCHESON STUDIOS, Omaha, on the classy art and production, they picked Kleen-Stik's new two-sided self-sticking tape for its easy application and extra holding power. A clear case of "two Kleen-Stik surfaces are better than one!"

Outstanding
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Featuring the World's Most
Versatile Self-Sticking Adhesive!



IDEA NO. 109

"Fat" Sales for SLENDER

For calorie counters everywhere, the CARNATION CO. of L.A. puts out a line of non-fattening dairy products named "SLENDER" — attractively packaged in slim-lined red-and-blue cartons. To help put across their slender-izin' message, they had SCHMIDT LITHOGRAPH CO. of San Francisco produce this attractive 3-D piece. Special die-cut slots in the measuring-tape circle hold "pop-out" package replicas of either Non-Fat Milk, Cottage Cheese, or Dairy Dessert . . . and the entire sign is backed with strips of KLEEN-STIK "D" Transfer Tape for quick, easy, *peel-an'-press* application on supermarket walls, windows, etc.

Make sure your customers know about KLEEN-STIK — the valuable "extra" that builds extra business for you. Write today for your big free "Idea Kit".

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will be thought of by the manufacturer primarily in terms of full color.

Color is here, with more in the future. *What are your plans?*★

WEB OFFSET

(Continued from Page 26)

long, and 25½ feet at its highest point.

A paper tensioning device at the roll stand measures and controls the rate of feeding of the web. Research and development was started more than 10 years ago.

Also at Western the same afternoon were a number of trade magazine editors who were driven to Poughkeepsie after a Harris reception in New York. Hosts at the reception were Jack Spencer, superintendent of the Poughkeepsie plant, and Ren R. Perry, vice president for sales at Harris-Seybold.

Elected to the executive committee of the Web Offset Section were the following: One Year Term—James S. Armitage, Inland Press; Floyd Phillips, Otterbein Press; and Charles H. Waldhauer, U. S. Playing Card Co. Two Years—James R. Bowler, Courier-Citizen Co.; and Houston Gray, Des Moines Register & Tribune Co. Three Years—Fred Best, Canadian Printing & Lithographing; and Edwin B. Parkes, Rand McNally & Co.★

PHOTO CLINIC

(Continued from Page 45)

red rays, the red ink patch would appear gray or black due to the lack of reflected rays. If we superimpose two transparent ink layers on white paper as, for example, yellow and magenta, the visual result would be red. Here, the successive absorptions by the yellow and magenta colorants have absorbed all but the red rays. In all instances the light reflected is less than the original energy.

All three-color reproduction systems are based on the separation (analysis) of the original scene or object, and the reconstruction (synthesis), in terms of its red, green and blue components. In additive systems

the analysis and synthesis colors are the same—namely, red, green and blue. In subtractive systems the analysis colors (filters) are red, green and blue, while the reproduction colors are yellow (minus blue), magenta (minus green), and cyan (minus red).

All of the current photographic color processes are subtractive systems. Three- and four-color printing by lithography are based on the subtractive system. However, because of the halftone dot structure, a lithographic color reproduction is a complex blend of subtractive and additive mixture.★

COPPERIZING

(Continued from Page 53)

too fast. It makes a black powdery deposit that doesn't stick and comes off after the plate has been on the press for a while.

To prevent this, LTF suggests flooding the solution on the plate when the relative humidity is high.

Use two or three times as much as you ordinarily do. The solution will still pick up moisture from the air but the relative amount or the percent of water to copper salt will be enough less to prevent over-activity and poor plating.★

PRODUCTION CLINIC

(Continued from Page 47)

sheet showing exactly what the trouble is.

Paper Curl

Q: I have trouble with a bad curl on paper across the tail edge of the sheet, causing mis-register on the second color. I am running with minimum pressure to get good transfer of solids. My press is a 17 x 22." Paper is 70 lb. coated two sides. Coverage is medium solids.

P.M., BROOKLYN

A: Curling of paper along the back edge may be caused by several things besides pressure. Excess water on the plate may be causing the curl if one of the dampeners is set too



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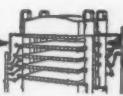
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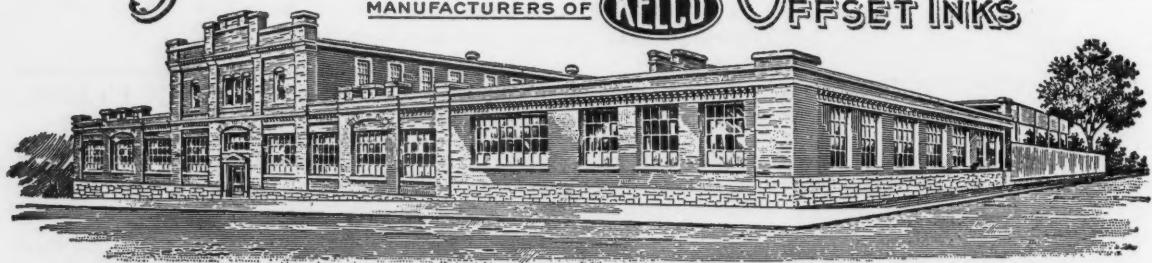
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light to the rider or vibrating roller, and the dampener is squeezing the extra water to the back edge of the plate.

It may also be caused by the cylinders running at the wrong surface speed because of faulty packing. If the blanket cylinder is overpacked and the plate cylinder under packed the difference in surface speeds of the cylinders will cause the blanket to creep at the back edge and will make the sheet curl.★

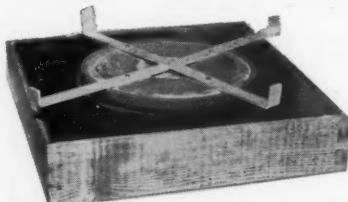
PHOTO-LINE

(Continued from Page 28)

gether and allowed to stay in the solution until the highlights of the overexposed film are heavily blocked up. The overexposed negative is the controlling factor. The other negative is open and a little on the thin side.

The negatives are individually contact printed. The lighter of the negatives is exposed under a 60-line, 45° diagonal screen.

The two thin base positives are then registered—both face up. The



Closeup view of the record player with clamp affixed for holding the "sandwich."

craftsman can see at this point exactly what his finished picture will look like. To make the Screen-Line Print, a negative is made and a paper print taken from it.

With the Screen-Line process renderings can also be furnished on film, either negative or positive, as desired.

The Screen-Line is produced under a conventional light source with the diagonal screen providing an effect similar to the refracted light.

John M. Lamoureux, vice president of Warwick, emphasizes that it is necessary to start with a quality print, preferably 8 x 10" or larger. Both processes are photographic and the quality of the finished product hinges

directly on the caliber of the picture that is put before the camera.

Tools for Artist

These processes should not be thought of as a replacement for an artist, but rather as tools which make the artist's job easier and enable him to produce more.

Mr. Lamoureux, who supervised the commercial introduction of these methods by his firm, is a skilled artist himself. In his view, the greatest benefit of photographic line techniques is that they relieve the artist of most of the tedium and allow him to concentrate on the creative aspects of line illustrations. Starting with a photographic line rendering, the artist can add or paint out details with full creative freedom. Providing the minute details of the line work mechanically, however, has the effect of enabling him to finish a job in an hour or two when it might have run 10 to 20 hours if he had started from scratch.

Finished line prints, under the Warwick program, are normally delivered on matte paper which accepts either ink or watercolor retouching. If preferred, however, the renderings can be furnished on film—either negative or positive.★

LETTERS

(Continued from Page 18)

business 14 months ago that our offset work has grown by leaps and bounds. We also have a letterpress department and a new V 50 Miehle.

To me, the many shortcuts and improvements in printing must come through offset because of the terrific savings in labor and materials, whereas letterpress process, wonderful in its field, is a very expensive method for many operations. Wise printers, with an eye to the future, must plan the inclusion of offset equipment or they are courting disaster.

The combination plant is definitely the ideal printing plant because it gives the printer so many services he can render his customers; but, as I have said above, the letterpress printer who shuts his eyes to the offset process, will have an increasingly difficult time to stay in the black than if he included offset in his development plans.

G. C. Fudge, President
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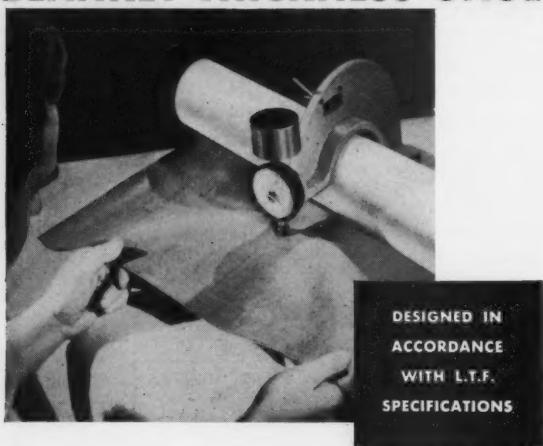
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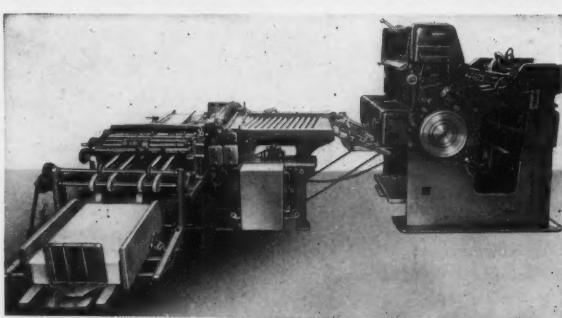
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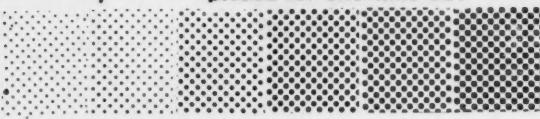


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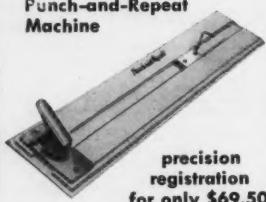
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WANTED: Cameramen, platemakers, strippers, pressmen, compositors, proofreaders, monotype, folder operators, binderymen, etc. Offset pressmen in high demand.	
GRAPHIC ARTS EMPLOYMENT SERVICE	
Helen, Employment Mgr.	
Dept. M-7, 307 E. 49th St.	
Cincinnati 2, Ohio	
List Your Confidential	
Application With Us	

4-Color first pressman needed in Miami, Florida. Write Box 295, c/o Modern Lithography.

METAL DECORATING—Our expanding efforts in this field have created two outstanding employment opportunities. Up to twenty thousand dollars annually available to person of considerable formulative ability on Rollcoat materials for metal decorating, who also has had experience contacting users in either sales or service capacity. Also, a minimum of ten thousand dollars annually for laboratory technician with metal decorating experience. Your background can control starting income above ten thousand dollars. Pension and insurance, of course. Our company among the largest in industrial field. You should not regret investigating these opportunities if you are qualified in the metal decorating field. All replies most confidential. Write fully to Box 296, c/o Modern Lithography.

SITUATIONS WANTED

TECHNICAL SPECIALIST: With outstanding record of achievement as technical advisor. A unique background of practical experience in lithographic production, trouble-shooting and trade training. Interested in responsible position with progressive plant involving technical supervision and in-plant training. Would also consider commensurate position with supplier or equipment manufacturer. Address Box 294 c/o Modern Lithography.

CAMERAMAN: Age 32 seeks change. Nine years in trade. Line work, black and white halftones and duo-tones. Some experience on indirect color separation. Address Box 290, c/o Modern Lithography.

LITHO FOREMAN or Supt. of Plate Dept. 20 years as superintendent specializing in 4 color process work. Can handle stripping, platemaking and photo-compositing to okaying colors on presses. Capable of taking care of shop for quality and production. Address Box 291 c/o Modern Lithography.

SHORT RUN PUBLICATIONS BY OFFSET—will organize a Publication Shop or department; train key employees to produce publications and other work from manuscript copy to finished product. Hot metal, cold-type, or photographic typesetting coupled with modern camera, stripping, and platemaking techniques and high speed, quick-change roll-fed offset. Tape operation

or geared vernier controls where suited. A manufacturing approach applied to short run work. Salary or fee basis. Address Box 292 c/o Modern Lithography.

WANTED: A progressive lithographer who is looking for a technical specialist to assume responsibility for plant improvement in methods, standards and control, with emphasis on color. Box 293 c/o Modern Lithography.

FOR SALE:

For Sale: Harris single color offset press. Model LSJ, 42" x 58", stream feeder with feed roll together with AC motor equipment. Excellent condition. Printing & Litho Equipment Co., 150 Nassau St., New York 38, N. Y. CO 7-4127.

Better Results

with an advertisement in the classified pages of

MODERN LITHOGRAPHY

OFFSET SUPPLIER CHICAGO AREA

To: MANUFACTURERS
of
SUPPLIES & EQUIPMENT

EXPANDING AND NEED
ADDITIONAL LINES

R. E. Peters

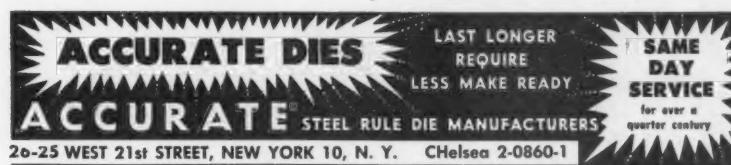
PROGRESSIVE LITHO PLATE
& SUPPLY CO.

435 No. State St., SUperior 7-8116
Chicago 10, Ill.

USED (?) EQUIPMENT (Used less than a month)

		Crated f.o.b. Price	New Provi- dence
1—Brown Elevating Type Vacuum Printing Frame, 60x80", 115V, AC . . .	\$1779.	\$1180.	
1—nuArc N-110 Printing Lamp, complete, height range 36" to 60", 220V, AC . . .	675.	475.	
1—Champion Downdraft D.E. Table, #4, 60x80" slab, 2 h.p. motor, 220V, AC, 3 phase . . .	1505.	990.	
1—Gelb Line-Up & Register Table, Model GNL-2, size 51x76", with precision geared vertical and horizontal straight edges, 2 paper grippers, and one side guide vernier calibration 1/64" . . .	2300.	1665.	

Offered subject to prior sale —
Bridgeport Engravers Supply Co.
287 Atlantic Ave. Boston, Mass.



ACCURATE DIES
ACCURATE STEEL RULE DIE MANUFACTURERS
26-25 WEST 21st STREET, NEW YORK 10, N. Y. CHelsea 2-0860-1

LAST LONGER
REQUIRE
LESS MAKE READY

SAME
DAY
SERVICE

for over a
quarter century



ETSCO Poly Mixing Tanks

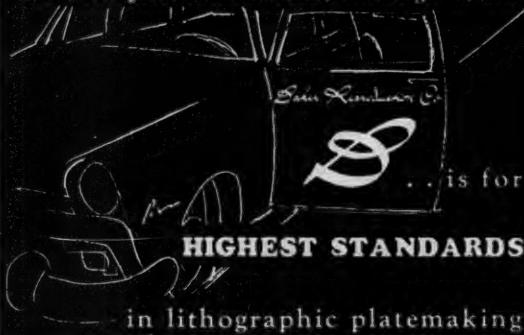
- Polyethylene—resists all darkroom chemicals.
- Poly Spigot—needlenose for tight seal.
- Round—no seams, easy to keep clean.
- Unit consists of tank and spigot.

Capacity Gallons	5	15	30	55
Price fob New York	\$15.00	\$24.00	\$29.25	\$31.50
Cover (extra)	3.50	4.00	4.50	6.00
Floating Lid (extra)	2.00	2.50	3.00	3.50

ETSCO Master Mixers Available for All Above Tanks

E. T. Sullebarger Co., 114 Liberty St., New York 6, N.Y.

208 So. Jefferson Street, Chicago 6, Ill.



in lithographic platemaking



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The SIMCO "Midget" is guaranteed the most effective, least expensive static eliminator available. Send for free literature today!

the SIMCO company
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and accessories for the camera
and darkroom

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DEEP ETCH PRESS PLATES

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Offset Platemakers
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Fine Printing Inks

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Litho Ruled Forms - QUICKER - EASIER - BETTER

* Perfect uniformity of rules — no film spoilage.
* 6 cutting heads in set: 4 for single rules from hairline to 1-point
rules; 2 cutting heads for double rules.

A postcard will bring descriptive literature

Scriber Specialties

1729 East 4th St. DULUTH, MINNESOTA

FAST, EFFICIENT DRYERS

for
WEB-OFFSET

*Speed *Production *Economy

Dryer Specialist for over 25 years

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**OFFSET PROOF PRESS
FOR SALE**

22 x 26 Wagner
22 x 30 Rutherford
34 x 36 Hall

Also Du-Fa Power Offset Proving Press,
Hall Presses & Parts, Paper Cutters and
other equipment for the Graphic Arts.

Thomas W. Hall Co.
Stamford, Conn.



Own a LUXOMETER

Find out from your dealer about the Lease Purchase plan to own a LUXOMETER. Free trial offer on your equipment — no obligation to purchase — no capital investment.



REMEMBER!

**SEPT.
13th
1957
*is the
last day!***



Yes, that's the last day to enter the P.I.A. Self-Advertising Awards competition. Don't be late—get your entry in now!

PRINTING INDUSTRY OF AMERICA, INC.
5728 Connecticut Ave., N.W.
Washington 15, D.C.

E G A

the RELIABLE Supplier
to the Lithographer
for SERVICE call Circle 6-3526
EASTERN GRAPHIC ARTS SUPPLY CO.
509 W. 56th ST., New York 19, N.Y.

IMPORTANT

September Special Convention Issue of MODERN LITHOGRAPHY

to be brought out at the

25th annual convention of the

National Association of Photo-Lithographers

St. Louis, Mo. will be host to the National Association of Photo-Lithographers for its silver anniversary convention, Sept. 11-15. The association, commemorating 25 years' service to the lithographic industry, has planned its biggest and best convention. Advertisers planning to use space in the convention issue of MODERN LITHOGRAPHY should have their copy in by August 1. SEPTEMBER is the convention issue, with complete program listings.

Advertising deadline for the Sept. issue is August 10.

MODERN LITHOGRAPHY

P. O. Box 31

Caldwell, N. J.

Make Big Profits in '57!

Raise GIANT Budgets

(In your spare time)



• A. B. of Two Dot, Mont., writes: "My tired budget was peped up like new again with a concentrated schedule in Modern Lithography after only three months!"



• C. D. of Black Wolf, Neb., writes: "I cured a nagging boss in only two months with Modern Lithography!"



• E. F. of Peapack, N. J., writes: "A. B. and C. D. are pikers!"



MODERN LITHOGRAPHY Leader in the Litho Field Caldwell, New Jersey

- Please rush information on the market and the magazine!
- Please rush rate card and contract blank!
- Please rush salesman!

Name

Company

Address

By learning how to buy Advertising Space

Giant Budgets are friendly and clean to keep around the office. If your advertising budget is small and puny—chances are it's because you haven't handled it in a way to bring results—and help it grow. (And, if you can't handle a little budget, it's a cinch the boss won't buy you a big one!)

IF YOU PICK ON IT—IT WON'T GROW!

One way an advertising space buyer picks on his budget is to cut it up in little pieces and scatter it around in every magazine that has the word "lithography" vaguely connected with it. Or, he gets on the right track and concentrates in one magazine—but picks the wrong one.

HOW TO RAISE GIANT BUDGETS

Concentrate your advertising in the one strongest magazine in the field—where the customers who really count will read your sales message month after month after month. And the strongest magazine is easy to judge. Just make a check chart on all the points on which two magazines can be compared!

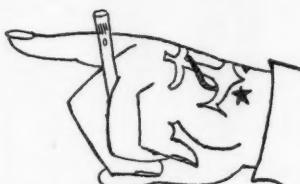
In the litho field, the winner on all six check points is MODERN LITHOGRAPHY!

1. Most Editorial Material
2. Most ABC Paid Circulation
3. Most Advertising Acceptance
4. Most Readership
5. Lowest Cost Coverage
6. PRESTIGE

It only makes sense to concentrate
in the strongest book—MODERN LITHOGRAPHY!

Mail this coupon NOW!

(Nothing down and 12 easy payments
of only \$170 per month)



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TALE ENDS

IN Halifax, Va., they've come up with an old stone lithographic press that has the whole town talking. Seems that Wilson Woosley, a tobacco grower, found the press in an abandoned tenant house on a plantation. Mrs. Frank White, owner of the estate, wrote Woosley from her new home in Seattle that she knew nothing of the press and advised him to sell it for junk. Woosley, at last reports, had received no offers to buy, and the *Richmond (Va.) Times Dispatch* said the press is residing "in the old railway station at Clarkton." Probably the press has an honorable history—if only someone would take the trouble to uncover it—like turning out counterfeit Confederate money, or bogus tickets to the Irish Sweepstakes.

ml

A picture postcard showing Big Ben in London is the device used by Graphic Arts Employment Service, Cincinnati, to tell the trade of its services. The card is imprinted with this statement: "This Message has come a long way to remind you of the Graphic Arts Employment Service." This kind of self-advertising makes a hit because of its novelty and it's also welcomed by stamp collectors.

ml

The protracted battle of the greeting cards apparently has been settled in Los Angeles, with Mrs. Claude L. McFaddin, of Long Beach, in firm possession of two tons of greeting cards that California Artists, Inc., a division of H. S. Crocker Co., of San Francisco, had deposited on the city dump several years ago.

Mrs. McFaddin bought the cards—valued at \$45,000 to \$50,000—from the City Dump & Salvage Co. of Long Beach. Crocker tried, through court action, to get them back, maintaining that the obsolete

cards should have been destroyed at the dump. The court ruled, in 1955, that Mrs. McFaddin was entitled to the cards. In March of this year, an appellate court upheld that view, so she now has 220,970 lithographed Christmas cards stored in her front bedroom.

ml

An exhibition of the work of Bruce Rogers, distinguished American book designer who died in May, closed July 1 at the Lakeside Press galleries of R. R.

Donnelley & Sons Co., in Chicago. It was a retrospective exhibit of 125 volumes representative of the career of Mr. Rogers, who had celebrated his 87th birthday on May 14. In his work, covering more than 66 years, Mr. Rogers had become one of the world's most influential book designers. H. Richard Archer, Donnelley librarian, declared, in appraising Mr. Rogers' contributions to fine book making. "His place among book designers of the world is beyond question of dispute."

ML

Minnesota Mining is boosting its sale of presensitized plates with a handsome gift. A four-color lithographed wildlife scene is being offered free by the company (Dept. M7-180, 900 Bush Street, St. Paul, Minn.) to show the quality in color and detail obtainable from "3M" brand presensitized grainless offset plates.

Keep Selling in the Summer



Just because the weather is hot, it's no time to slack off and let your competitors get the jump on you. And one good way to keep your sales program rolling is with a consistent advertising program through the summer months. This issue is full of smart advertisers who are continuing to make sales. Are you?

MODERN LITHOGRAPHY

Box 31

Caldwell, N. J.

Member, Audit Bureau of Circulations

Plan for QUALITY



What gives one contender the edge over others in his class is a shade finer planning and execution. Whether you print by letterpress or offset, you may expect to find advantages in using a brush-coated paper from a mill that has specialized in coating exclusively for nearly seventy years. That's Cantine's...

LETTERPRESS

Hi-Arts
Ashokan
M-C Folding Book
M-C Folding Cover
Zena
Velvetone
Softone
Esopus Tints
Esopus Postcard

OFFSET-LITHO

Hi-Arts Litho C.1S.
Zenagloss C.2S.
Zenagloss Cover C.2S.
Lithogloss C.1S.
Catskill Litho C.1S.
Catskill Offset C.2S.
Esopus Postcard C.2S.
Esopus Tints

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THE MARTIN CANTINE COMPANY

Specialists in Coated Paper since 1888

Saugerties, N. Y. and New York City

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COATED PAPERS



You get more with one of the "FIRST FOUR"

Cashing in on the dynamic growth of offset lithography, commercial, specialty and job press printers use more Harris presses than all other offset makes combined. The "first four" presses in the Harris line cover the popular sizes up to 23 x 30". Like all Harrises, they combine fast-on, fast-off versatility with high running speeds. Their precision register and sheet control produce more salable sheets of the finest print quality in the payoff pile.

Rugged, soundly engineered Harris presses are the product of 50 years' experience in lithography. Backing their profitable operation year after year is the best-trained service organization in the Graphic Arts.

It will pay you to compare Harris offset with your present equipment before you expand your plant or replace less efficient units. Check your local Harris-Seybold sales representative for the facts today. Harris-Seybold Company, 4510 East 71st Street, Cleveland 5, Ohio.

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SEYBOLD
COMPANY**

HARRIS-SEYBOLD

4510 East 71st Street, Cleveland 5, Ohio

